City Council Regular Meeting

Thursday, February 25, 2021
6:00 p.m.

Chandler City Council Chambers
88 E. Chicago St., Chandler, AZ

CHANDLER
arizona
Community of Innovation

From left to right: Councilmember Matt Orlando, Councilmember Rene' Lopez, Vice Mayor Mark Stewart, Mayor Kevin Hartke, Councilmember OD Harris, Councilmember Christine Ellis, Councilmember Terry Roe

Our Vision

We are a world-class City that provides an exceptional quality of life.

Our Brand

A safe community that connects people, chooses innovation and inspires excellence.

Our Goals

City Council Strategic Policy Goals

1. Being the most connected City
2. Being a leader in trust and transparency
3. Maintaining fiscal sustainability
4. Attracting a range of private sector businesses
5. Fostering a contemporary culture that embraces unity
6. Being safe and beautiful

Pursuant to Resolution No. 4464 of the City of Chandler and to A.R.S. 38-431.02, notice is hereby given to the members of the Chandler City Council and to the general public that the Chandler City Council will hold a REGULAR MEETING open to the public on Thursday, February 25, 2021, at 6 p.m., in the Chandler City Council Chambers, 88 E. Chicago Street, Chandler, Arizona. One or more members of the Chandler City Council may attend this meeting by telephone.

Persons with a disability may request a reasonable accommodation such as a sign language interpreter by contacting the City Clerk's office a 480-782-2181. Requests should be made as early as possible to allow time to arrange accommodation.

Agendas are available in the Office of the City Clerk, 175 S. Arizona Avenue.

Regular Meeting Agenda

Call to Order

Roll Call

Invocation - Pastor Mark Rossington, Epiphany Lutheran Church

Pledge of Allegiance

Briefing

1. Citizen Bond Exploratory Committee Executive Summary by Chairman Boyd Dunn

Consent Agenda

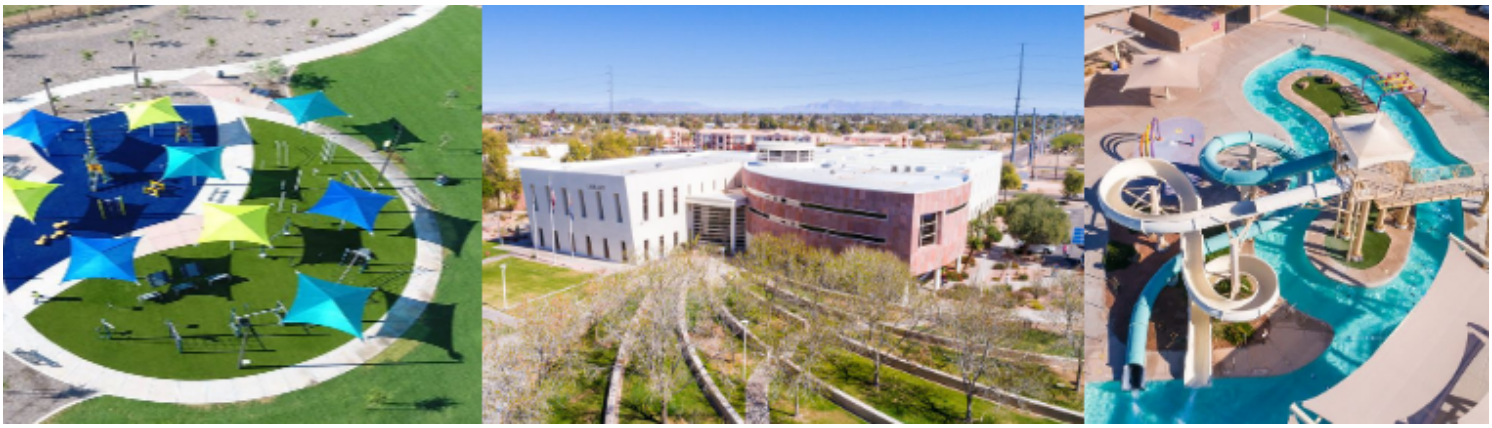
Items listed on the Consent Agenda may be enacted by one motion and one vote. If a discussion is required by members of the governing body, the item will be removed from the Consent Agenda for discussion and determination will be made if the item will be considered separately.

City Clerk

1. **February 2021 Council Minutes**

   Move to approve the Council meeting minutes of the Study Session and Special Meeting of February 8, 2021, and the Work Session and Regular Meeting of February 11, 2021.

Council Focus Area(s):



Community Services

2. **Professional Services Agreement with Gavan & Barker, Inc., for the Snedigar Sportsplex West Restroom Replacement project Design Services.**

   Move City Council award Professional Services Agreement No. PR2102.201 to Gavan & Barker, Inc., for the Snedigar Sportsplex West Restroom Replacement project Design Services, in an amount not to exceed $36,690.07.

   Council Focus Area(s):

Development Services

3. **Final Adoption of Ordinance No. 4962, ANX20-0002, Annexation and Initial City Zoning - South of the Southwest Corner of Gilbert and Ocotillo Roads**

   Move City Council adopt Ordinance No. 4962 approving ANX20-0002, Annexation and Initial City Zoning - South of the Southwest Corner of Gilbert and Ocotillo roads, as recommended by Planning staff.

   Council Focus Area(s):

4. **Final Adoption of Ordinance No. 4960, PLH20-0034 Chandler La Paglia High School Seminary and Professional Offices**

Move City Council adopt Ordinance No. 4960 approving PLH20-0034, La Paglia High School Seminary and Professional Offices, Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

Council Focus Area(s):

5. **Introduction of Ordinance No. 4961, PLH20-0023, PLT20-0037 Pecos and McQueen Retail (Staff Requests Continuance to the March 25, 2021, City Council Meeting)**

Move City Council continue PLH20-0023 Pecos and McQueen Retail, located at the southwest corner of Pecos and McQueen roads, to the March 25, 2021, City Council meeting, as recommended by Planning and Zoning Commission.

Council Focus Area(s):

6. **Resolution No. 5439, authorizing a Development Agreement with Valley Christian Schools for the Installation of Roadway and Traffic Improvements**
Resolution No. 5440, authorizing a Deactivation Agreement with Salt River Valley Water User's Association for Removal of an Irrigation Structure

Development Agreement
Move City Council approve Resolution No. 5439, authorizing a Development Agreement between the City of Chandler and Valley Christian Schools, an Arizona Non-profit Corporation, for the installation of roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

Deactivation Agreement
Move City Council approve Resolution No. 5440, authorizing a Deactivation Agreement between the City of Chandler and Salt River Valley Water User's Association, an Arizona Corporation, for the removal of an irrigation delivery structure to accommodate roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

Council Focus Area(s):

7. **Final Plat, PLT20-0024, Ferguson Enterprises MDC**

Move City Council approve Final Plat, PLT20-0024, Ferguson Enterprises MDC, located on the south side of Queen Creek Road, east of Hamilton Street, as recommended by Development Services Staff.

Council Focus Area(s):

8. **Final Plat, PLT20-0025, Casadia**

Move City Council approve Final Plat, PLT20-0025, Casadia, located on the east side of McQueen Road, south of Chandler Heights Road, as recommended by Development Services Staff.

Council Focus Area(s):

Facilities and Fleet

9. **Purchase of HVAC Equipment, Installation and Services from TDIndustries, Inc., Johnson Controls, Inc., Daikin Applied Americas, Inc., and Trane U.S. Inc.**

   Move City Council approve the utilization of Omnia Partners Contracts, No. R200403 with TDIndustries, Inc., Contract No.R200402 with Johnson Controls, Inc., Contract No.R200401 with Daikin Applied Americas, Inc., and Contract No. 15-JLP-023 with Trane U.S. Inc., for the purchase of HVAC equipment, installation and services, in an amount not to exceed $815,000.

   Council Focus Area(s):

10. **Agreement No. BF9-910-4013, Amendment No. 1, with Rycon Industries, Inc., dba Skyline Window Cleaning for Window Washing Services**

    Move City Council approve Agreement No. BF9-910-4013, Amendment No. 1, with Rycon Industries, Inc., dba Skyline Window Cleaning, for window washing services, in an amount not to exceed $60,000, for a one-year term, February 1, 2021, through January 31, 2022.

    Council Focus Area(s):

Information Technology

11. **Enterprise License Agreement with Environmental Systems Research Institute, Inc. (ESRI)**

    Move City Council approve Agreement No. 4289 with Environmental Systems Research, Inc. (ESRI) for an enterprise license for Geographic Information System (GIS) software in the amount of $480,000 for a three-year period beginning March 12, 2021, through March 11, 2024, payable on an annual basis.

Council Focus Area(s):

12. **Agreement with Accelerated Technology Laboratories, Inc., for a Hosted Laboratory Information Management System**

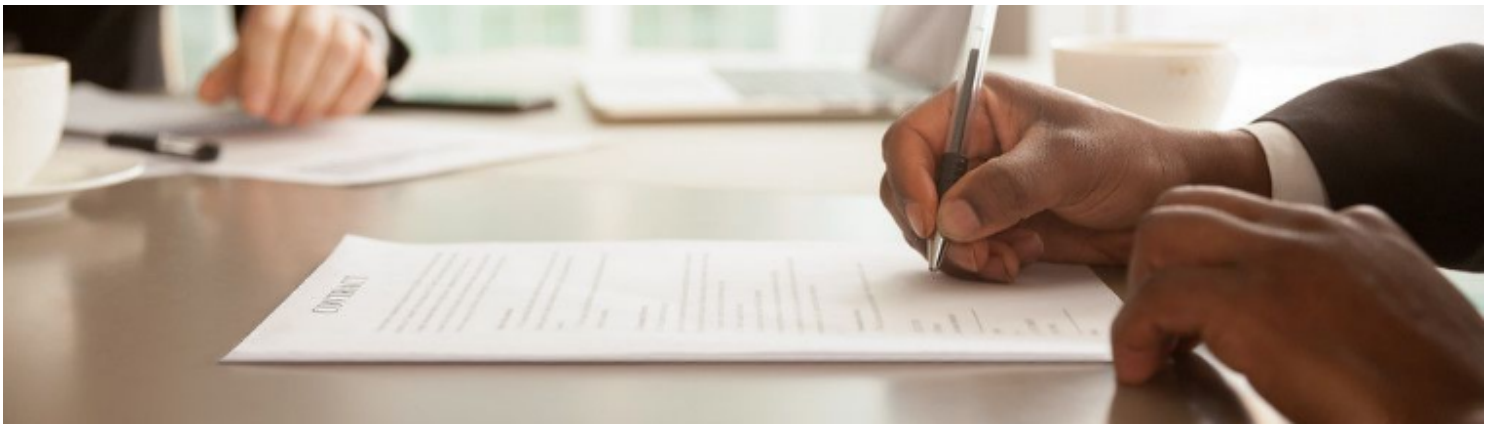
Move City Council award Agreement No. IT9-208-4063, to Accelerated Technology Laboratories, Inc., for a hosted laboratory information management system, in the amount of $73,799.

Council Focus Area(s):

13. **Purchase of VMware Licenses and Annual Support from Dell**

Move City Council approve the purchase of VMware licenses and annual support utilizing the State of Arizona Contract No. ADSPO16-098163 with Dell in the amount of $134,366.

Council Focus Area(s):



Management Services

14. **License Series 12, Restaurant Liquor License application for Sonas Tavern #1, dba Rosati's Pizza**

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132127, a Series 12, Restaurant Liquor License, for Amy S. Nations, Agent, Sonas Tavern #1 Inc., dba Rosati's Pizza, located at 1050 E. Ray Road, Suite 2, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 300287 L12.

Council Focus Area(s):

15. **License Series 12, Restaurant Liquor License application, for GTC Chandler LLC, dba Good Time Charli's**

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132752, a Series 12, Restaurant Liquor License, for Raymond F. Sanchez, Agent, GTC Chandler LLC, dba Good Time Charli's, located at 6045 W. Chandler Boulevard, Suite 7, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 300408 L12.

Council Focus Area(s):

16. **New Liquor License Series 6, Bar Liquor License application for Yaashi Sibs Inc., dba 810 Billiards & Bowling**

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132056, a Series 6, Bar Liquor License for Poonam Manek, Agent, Yaashi Sibs Inc., dba 810 Billiards & Bowling, located at 3455 W. Frye Road, Suite 2, and approval of the City of Chandler, Series 6, Bar Liquor License No. 300410 L6.

Council Focus Area(s):

17. **New Liquor License Series 12, Restaurant Liquor License application for Paletas Betty LLC, dba Paletas Betty**

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132855, a Series 12, Restaurant Liquor License, for Alvin Doi-Chih Hong, Agent, Paletas Betty LLC, dba Paletas Betty, located at 96 W. Boston Street, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 130621 L12.

Council Focus Area(s):

18. **New License Series 4, In State Wholesalers Liquor License application, for Nuwave Beverage LLC, dba Nuwave Beverage**

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 129847, a Series 4, In State Wholesalers Liquor License, for Surekha Soorma, Agent, Nuwave Beverage LLC, dba Nuwave Beverage, located at 3225 N. Arizona Avenue, Suite 10, and approval of the City of Chandler, Series 4, In State Wholesalers Liquor License No. 300441 L04.

Council Focus Area(s):

Neighborhood Resources

19. **Resolution No. 5441 authorizing Amendment No. 3 to the Intergovernmental Agreement (IGA) with Maricopa County for the Purpose of Providing Temporary Housing for At Risk Individuals and Families due to the COVID-19 Pandemic Utilizing Hotel Rooms**

Move City Council pass and adopt Resolution No. 5441 approving and authorizing Amendment No. 3 to an Intergovernmental Agreement (IGA) between Maricopa County Administered by its Human Services Department and City of Chandler for the purpose of providing temporary housing for at-risk individuals and families due to the COVID-19 pandemic utilizing hotel rooms in an amount of $79,580 for a new total expenditure of $238,740; extending the term of the agreement through March 31, 2021; and authorizing the City Manager or designee to sign the agreement and all related documents on behalf of the City of

Chandler.

Council Focus Area(s):

20. **Resolution No. 5442 Authorizing the Reallocation of AZCares Grant Funds for Future Distribution; and Reallocation to Chandler AZCEND, the Salvation Army Chandler Corps, Save the Family, and the Neighborhood Resources Department for Services to Assist Chandler Households Negatively Impacted by the Coronavirus Pandemic**

Move City Council pass and adopt Resolution No. 5442 Authorizing the Reallocation of $3,000,000 of AZCares Grant Funds for future distribution; and authorizing reallocation to AZCares grant funds in the amount of $1,115,000 to Chandler AZCEND, the Salvation Army Chandler Corps, Save the Family, and the Neighborhood Resources Department for services to assist Chandler households negatively impacted by the Coronavirus Pandemic.

Council Focus Area(s):

21. **Resolution No. 5443 Authorizing an Agreement with the US Department of the Treasury for the Emergency Rental Assistance Program; Agreement with AZCEND to Administer and Distribute Funds to Assist Chandler Households in Need Due to COVID-19; Authorizing the Neighborhood Resources Department to Administer the Emergency Rental Assistance Program and Continue the Chandler Cares Team for a Second Year**

Move City Council pass and adopt Resolution No. 5443 approving and authorizing an agreement between the US Department of the Treasury and the City of Chandler in the Amount of $7,946,091.60 for the Emergency Rental Assistance Program and approve a General Fund, Contingency Transfer to the Grant Fund, Neighborhood Resources Department, Community Development Cost Center; thereby authorizing an agreement with AZCEND to administer and distribute funds in the amount of $7,671,091.60 to assist Chandler households in need due to COVID-19; and authorizing the Neighborhood Resources Department to utilize $275,000 to administer the Emergency Rental Assistance Program and Continue the Chandler Cares Team for a Second Year; and authorizing the City Manager or designee to sign agreements and all related documents on behalf of the City of Chandler.

Council Focus Area(s):

Public Works and Utilities

22. **Agreement No. PW8-926-3939, Amendment No. 2, with United Fibers, LLC, for Processing and Marketing of Recyclable Materials**

Move City Council approve Agreement No. PW8-926-3939, Amendment No. 2, with United Fibers, LLC, for the processing and marketing of recyclable materials, in an amount not to exceed $1,200,000, for a one-year term, March 1, 2021, through February 28, 2022.

Council Focus Area(s):

23. **Project Agreement No. SW2101.401, with Nesbitt Contracting Co., Inc., for the Solid Waste Landfill West Side Stormwater Channel Improvements**

Move City Council award Project Agreement No. SW2101.401, to Nesbitt Contracting Co., Inc., pursuant to Job Order Contract No. JOC1907.401, for the Solid Waste Landfill West Side Stormwater Channel Improvements, in an amount not to exceed $248,712.72.

Council Focus Area(s):

24. **Construction Manager at Risk Contract No. WA2008.251, with Achen-Gardner Construction, LLC, for the Loop 101 and 202 Freeway Waterline and Sewer Rehabilitation Pre-Construction Services**

Move City Council award Construction Manager at Risk Contract No. WA2008.251 to Achen-Gardner Construction, LLC, for the Loop 101 and 202 Freeway Waterline and Sewer Rehabilitation Pre-Construction Services, in an amount not to exceed $249,854.82.

Council Focus Area(s):

25. **Construction Manager at Risk Contract No. WW1901.401, with McCarthy Building Companies, Inc., for the Water Reclamation Facility Improvements GMP-1**

Move City Council award Construction Manager at Risk Contract No. WW1901.401 to McCarthy Building Companies, Inc., for the Water Reclamation Facility Improvements GMP-1, in an amount not to exceed $5,842,737.

Council Focus Area(s):

26. **Professional Services Agreement No. WW1901.451, with Wilson Engineers, LLC, for the Water Reclamation Facility Improvements Construction Management Services**

Move City Council award Professional Services Agreement No. WW1901.451 to Wilson Engineers, LLC, for the Water Reclamation Facility Improvements Construction Management Services, in an amount not to exceed $126,410.

Council Focus Area(s):

27. **Resolution No. 5438, Authorizing an Agreement Among the City of Chandler, Pima Utility Company, and Sun Lakes Marketing Limited Partnership, LLP, for Potable Water Interconnect and Abandonment of Inactive Wells**

Move City Council approve Resolution No. 5438, authorizing an agreement among the City of Chandler; Pima Utility Company, an Arizona Corporation; and Sun Lakes Marketing Limited Partnership, LLP, an Arizona limited partnership and a corporate affiliate of Pima Utility Company; for the delivery of potable water through interconnections between their potable water distribution systems and for the abandonment of inactive wells located near Alma School and Willis roads, Alma School and Pecos roads, and Alma School and Queen Creek roads and authorizing the Public Works and Utilities Director to execute the Agreement.

Council Focus Area(s):

28. **Purchase of Network Equipment and Services from Sentinel Technologies, Inc.**

Move City Council approve the purchase of network equipment and services from Sentinel Technologies, Inc., utilizing 1GPA Contract No. 21-02PV-08, in an amount not to exceed $126,940.

Council Focus Area(s):

29. **Agreement No. BF8-936-3802, Amendment No. 2, with Western States Fire Protection Co., for Fire Protection Services**

Move City Council approve Agreement No. BF8-936-3802, Amendment No. 2, with Western States Fire Protection Co., for fire protection services, increasing the spending limit by $720,000, for a revised amount not to exceed $920,000.

Council Focus Area(s):

30. **Sole Source Purchase of Hach Equipment, Service, and Parts**

Move City Council approve the sole source purchase of Hach equipment, service, and parts, from Hach Company, in the amount of $265,000.

Council Focus Area(s):

Action Agenda

31. **Introduction of Ordinance No. 4958, Preliminary Development Plan and Preliminary Plat, PLH19-0063/PLT19-0055 Elux at McQueen**

Rezoning

Move City Council introduce and tentatively adopt Ordinance No. 4958 approving PLH19-0063 Elux at McQueen, Rezoning from AG-1 to PAD for multi-family residential located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the conditions as recommended by the Planning and Zoning Commission.

Preliminary Development Plan

Move City Council approve Preliminary Development Plan PLH19-0063 Elux at McQueen for site layout and building architecture located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the conditions as recommended by the Planning and Zoning Commission.

Preliminary Plat

Move City Council approve Preliminary Plat PLT19-0055 Elux at McQueen located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the condition recommended by

the Planning and Zoning Commission.

Council Focus Area(s):

32. **Resolution No. 5431 Amending the Citywide Fee Schedule**

Move to pass and adopt Resolution No. 5431 amending the Citywide Fee Schedule relating to the Airport, Community Services, Development Services, Cultural Development, Fire, and Neighborhood Resources Departments or Divisions, with the Airport and Fire fee changes becoming effective March 1, 2021, and the remaining fees effective July 1, 2021.

Council Focus Area(s):

Unscheduled Public Appearances

Current Events

1. Mayor's Announcements
   a. Retirement Recognition of City Manager, Marsha Reed
2. Council's Announcements
3. City Manager's Announcements

Adjourn

ITEM 1

CHANDLER arizona
Community of Innovation

City Council Memorandum **City Clerk's Office** **Memo No.** 21-005

Date:	February 25, 2021
To:	Mayor and Council
From:	Dana DeLong, City Clerk
Subject:	February 2021 Council Minutes

Proposed Motion:

Move to approve the Council meeting minutes of the Study Session and Special Meeting of February 8, 2021, and the Work Session and Regular Meeting of February 11, 2021.

Background/Discussion

Attached for approval are the City Council minutes for the meetings held on February 8 and February 11, 2021.

Attachments

February 8, 2021, Special Meeting Minutes
February 8, 2021, Study Session Minutes
February 11, 2021, Budget Workshop #1 Minutes
February 11, 2021, Regular Meeting Minutes

CITY OF CHANDLER COUNCIL MEETING MINUTES
Special Meeting
Monday, February 8, 2021

MINUTES OF THE SPECIAL MEETING OF THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, held on Monday, February 8, 2021, in the Council Chambers, Council Conference Room, 88 E. Chicago Street, Chandler, Arizona

THE MEETING WAS CALLED TO ORDER BY MAYOR KEVIN HARTKE AT 4:02 P.M.

The following members were present:

Kevin Hartke	Mayor
Mark Stewart	Vice-Mayor
René Lopez	Councilmember
OD Harris	Councilmember
Terry Roe	Councilmember
Christine Ellis	Councilmember
Matt Orlando	Councilmember

Staff present: Marsha Reed, City Manager; Kelly Schwab, City Attorney, Dana DeLong, City Clerk; Rae Lynn Nielsen, Human Resources Director

1. Personnel Matters--A.R.S. Sections 38-431.03(A)(1) and (A)(4) - Discussion or consideration regarding appointment of Interim City Manager and discussion or consultation with the City Attorney for legal advice regarding recruitment of Presiding City Magistrate and City Manager and potential contracts for recruitment of candidates for same.

COUNCILMEMBER LOPEZ MOVED TO HOLD AN EXECUTIVE SESSION MEETING IMMEDIATELY FOLLOWING THE SPECIAL MEETING; SECONDED BY VICE MAYOR STEWART.

MOTION CARRIED UNANIMOUSLY. (7-0)

ADJOURNMENT: The Special Meeting was adjourned at approximately 4:02 p.m.

ATTEST: _____ _____
City Clerk Mayor

Approval Date of Minutes: November 2, 2020

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Special Meeting of the City Council of Chandler, Arizona, held on the 8th day of February, 2021. I further certify that the meeting was duly called and held and that a quorum was present.

DATED this _____ day of February, 2021.

_____
City Clerk

unofficial

CHANDLER arizona

CITY OF CHANDLER COUNCIL MEETING MINUTES
Study Session
Monday, February 8, 2021

MINUTES OF THE STUDY SESSION OF THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, held in the Council Chambers, 88 E. Chicago Street, Chandler, Arizona, on Monday, February 8, 2021.

THE MEETING WAS CALLED TO ORDER BY MAYOR KEVIN HARTKE AT 6:01 P.M.

The following members were present:

Kevin Hartke	Mayor
Mark Stewart	Vice Mayor
OD Harris	Councilmember
René Lopez	Councilmember
Terry Roe	Councilmember
Christine Ellis	Councilmember
Matt Orlando	Councilmember

Also in attendance:

Marsha Reed	City Manager
Joshua Wright	Assistant City Manager
Debra Stapleton	Assistant City Manager
Kelly Schwab	City Attorney
Dana DeLong	City Clerk

SCHEDULED PUBLIC APPEARANCES

MAYOR HARTKE invited Vice Mayor Stewart to join him for the recognitions.

1. Retirement Recognition

Communications and Public Affairs

Craig Younger 25 years

2. Proclamation Black History Month and Comments by Pastor Victor Hardy

MAYOR HARTKE read the proclamation and invited Pastor Victor Hardy to accept.

PASTOR VICTOR HARDY said Carter G. Woodson created Black History Month in 1915. Pastor Hardy said this was the time of year many people ask why there is Black History Month as people forget the rich heritage and those who have made history in the country. Pastor Hardy said he is proud of those who have set the stage for this conversation and who have tried to right the wrongs of the country. Pastor Hardy said the City has made

strides to elect the first African American school board member in 2004, and a second school board member in 2018, and in 2020 two African American Councilmembers; one the first woman of color. In 2020, the school district appointed the first African American principal at Chandler High School. Pastor Hardy said one of the greatest occasions was to see the Chandler Police Chief walk with Black Lives Matter. There is a still a long way to go to change perception and continue to be better than where they were before.

3. Chandler High School and Hamilton High School Football Teams Recognition

MAYOR HARTKE announced that Chandler High School won the State Championship and Hamilton High School was the runner up. He said it was great to see Chandler represented. Mayor Hartke invited representatives from both school to introduce themselves.

4. Arizona Institute of Architects Award Chandler Public Safety Training Center Shade Structure

KIM MOYERS, Cultural Development Director, invited staff to accept the award and said the shade structure called Our Nature was recognized by the Arizona Institute of Architects under the design category. The structure consists of three leaf like awnings to provide reprieve from the sun and create a calming environment. The art piece under the guidance of the Chandler Arts Commission and Police and Fire Departments.

CONSENT AGENDA DISCUSSION

COUNCILMEMBER ORLANDO asked for a staff presentation on Consent Agenda Item No. 4.

4. Resolution No. 5436, Authorizing an Intergovernmental Agreement with Maricopa County Regarding Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot for the Loop 101 Price Freeway
Move City Council pass and adopt Resolution No. 5436 authorizing an Intergovernmental Agreement (IGA) between Maricopa County and the City of Chandler regarding the Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot Project for the Loop 101 Price Freeway.

DANA ALVIDREZ, City Transportation Engineer, said this was a three year pilot program to test integrated corridor management as it relates to unplanned closures. The project is federally funded and would be administered through ADOT and Maricopa County Department of Transportation. This is a regional effort that extends through the Loop 101 Corridor which runs through many cities. The project would develop signal timing for various closure scenarios and establish interoffice communication during ICM events across organizations and law enforcement. Ms. Alvidrez said they have worked jointly with the Police Department and would continue to do so. Ms. Alvidrez said if an incident does occur the agencies would work together to establish detour routes and improve safety and security of the scenes and minimize congestion.

COUNCILMEMBER ORLANDO asked when this would be implemented.

MS. ALVIDREZ said this would be funded through Fiscal Years 2022 through 2024, and staff would be working with the other agencies on the timing plans.

COUNCILMEMBER ORLANDO said the program is great and is looking forward to it.

CONSENT AGENDA ITEMS

1. January 2021 Council Minutes
   Move to approve the Council meeting minutes of the Study Session and Special Meeting of January 25, 2021, and the Regular Meeting of January 28, 2021.

2. Resolution No. 5434, Authorizing a Wireless License Agreement with CCTMO, LLC, for the Existing Monopalm Tower Adjacent to the Police Department Property and Evidence Yard
   Move to approve Resolution No. 5434, authorizing the Mayor to execute the license agreement between the City of Chandler and T-Mobile West Tower, LLC, by and through CCTMO, LLC, for the existing Monopalm macro cell site currently located at the Police Property and Evidence Yard at 576 W. Pecos Road, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

3. Resolution No. 5435, Authorizing a License Agreement with Cellco Partnership, dba Verizon Wireless, for the Existing PHO Rubenstein Marco Cell Site
   Move to approve Resolution No. 5435, authorizing the Mayor to execute the wireless license agreement between the City of Chandler and Cellco Partnership, dba Verizon Wireless, for the existing PHO Rubenstein macro cell site, located at the east side of Cooper Road and south of Buchanan Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

4. Resolution No. 5436, Authorizing an Intergovernmental Agreement with Maricopa County Regarding Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot for the Loop 101 Price Freeway
   Move City Council pass and adopt Resolution No. 5436 authorizing an Intergovernmental Agreement (IGA) between Maricopa County and the City of Chandler regarding the Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot Project for the Loop 101 Price Freeway.

5. Introduction of Ordinance No. 4962, Annexation and Initial City Zoning ANX20-0002 for Approximately 1.71 Acres and Zoning to Agricultural District (AG-1), Located South of the Southwest corner of Gilbert and Ocotillo Roads
   Move City Council introduce and tentatively adopt Ordinance No. 4962 approving Annexation and Initial City Zoning ANX20-0002, South of the Southwest Corner of Gilbert and Ocotillo roads, as recommended by Planning staff.

6. Resolution No. 5437, Introduction of Ordinance No. 4960, PLH20-0033 and PLH20-0034 Chandler La Paglia High School Seminary and Professional Offices
   Area Plan
   Move City Council approve Resolution No. 5437 Southeast Chandler Area Plan amendment, PLH20-0033, located south of the southwest corner of Gilbert and Ocotillo roads, as recommended by
   Planning and Zoning Commission.
   Rezoning

Move City Council introduce and tentatively adopt Ordinance No. 4960 approving PLH20-0034 La Paglia High School Seminary and Professional Offices, Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

Preliminary Development Plan

Move City Council approve Preliminary Development Plan PLH20-0034 La Paglia High School Seminary and Professional Offices, for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

7. Introduction of Ordinance No. 4961, PLH20-0023, PLT20-0037 Pecos and McQueen Retail (Staff requests Continuance to the February 25, 2021, Council Meeting)

Move City Council continue PLH20-0023 Pecos and McQueen Retail, located at the southwest corner of Pecos and McQueen roads, to the February 25, 2021, City Council meeting, as recommended by Planning and Zoning Commission.

8. Final Adoption of Ordinance No. 4954, PLH20-0028 Hudson Crossings

Move City Council adopt Ordinance No.4954 approving PLH20-0028 Hudson Crossings, Rezoning from PAD multi-family to PAD single family for a single family development, located east of the northeast corner of McQueen Road and the Loop 202 Santan Freeway subject to the conditions as recommended by Planning and Zoning Commission.

9. Final Adoption of Ordinance No. 4955, PLH20-0048 Valerio at Ocotillo and Residence Inn Expansion

Move City Council adopt Ordinance No. 4955 approving PLH20-0048 Valerio at Ocotillo and Residence Inn Expansion, Rezoning from Planned Area Development for Medium Density Residential (PAD/MF-1) to PAD for Commercial, located east of the southeast corner of Queen Creek and Price roads subject to the conditions as recommended by the Planning and Zoning Commission.

10. Final Adoption of Ordinance No. 4959, PLH20-0049 1st Pet Veterinary Centers

Move City Council adopt Ordinance No. 4959 approving PLH20-0049 1st Pet Veterinary Centers, Rezoning from Planned Area Development (PAD) to Planned Area Development Amended, adding veterinary clinic and like uses, located at 1257 W. Warner Road (West of the Southwest corner of Alma School and Warner Roads), subject to the conditions as recommended by the Planning and Zoning Commission.

11. New License Series 10, Beer and Wine Store Liquor License, for Tawa Inc., dba 99 Ranch Market #53

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 130676, a Series 10, Beer and Wine Store, for Kevin Arnold Kramber, Agent, Tawa Inc., dba 99 Ranch Market #53, located at 1920 W. Chandler Boulevard, and approval of the City of Chandler, Series 10, Beer and Wine Store Liquor License No. 300317 L10

12. Professional Services Agreement with Wilson Engineers, LLC, for the Airport Water Reclamation Facility Membrane Pre-Design Services

Move City Council award Professional Services Agreement No. WW1901.202 to Wilson Engineers, LLC, for the Airport Water Reclamation Facility Membrane Pre-Design Services, in an amount not to exceed $198,560.

13. Agreement with Metering Services, Inc., for Small Water Meter Installation, Repair, and Consulting Services
Move City Council approve Agreement No. PW1-936-4262 with Metering Services, Inc., for small water meter installation, repair, and consulting services, in an amount not to exceed $490,820.

14. Agreement No. PW0-890-4209, Amendment No. 1, with Core and Main, LP, for Water Meters
Move City Council approve Agreement No. PW0-890-4209, Amendment No. 1, with Core and Main, LP, for water meters, increasing the contract limit in the amount of $2,509,180, for a revised amount not to exceed $5,509,180, for a two-year period, September 1, 2020, through August 31, 2022.

15. Construction Contract with Cactus Asphalt, a Division of Cactus Transport, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project
Move City Council award Construction Contract No. ST1909.401 to Cactus Asphalt, a Division of Cactus Transport, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project, in an amount not to exceed $2,077,524.50.

16. Construction Contract with Archer Western Construction, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive)
Move City Council award Construction Contract No. WA2006.401 to Archer Western Construction, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive), in an amount not to exceed $1,202,980.

17. Professional Services Agreement with Wilson Engineers, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive)
Move City Council award Professional Services Agreement No. WA2006.451 to Wilson Engineers, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive), in an amount not to exceed $105,730.

18. Report of City Manager Emergency Authorization of Project Agreement with Garney Companies, Inc., Pursuant to Job Order Contract for the Lone Butte Effluent Pipeline Repair
Move City Council accept the report of the City Manager emergency authorization of Project Agreement No. WW2103.402 with Garney Companies, Inc., pursuant to Job Order Contract No. JOC1914.401, for the Lone Butte Effluent Pipeline Repair, in an amount not to exceed $111,220.02.

19. Professional Services Agreement with Tristar Engineering and Management, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project Construction Management Services
Move City Council award Professional Services Agreement No. ST1909.451 to Tristar Engineering and Management, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project Construction Management Services, in an amount not to exceed $226,618.88.

20. Final Adoption of Ordinance No. 4953 Granting an Irrigation Easement to Salt River Project Agricultural Improvement and Power District

Move City Council approve final adoption of Ordinance No. 4953 granting an irrigation easement to Salt River Project Agricultural Improvement and Power District at the northwest corner of Arizona Avenue and Queen Creek Road, at no cost, to formalize an existing United States Government undefined irrigation easement at this location.

21. Final Adoption of Ordinance No. 4956 Granting Three (3) Irrigation Easements to Roosevelt Water Conservation District

Move City Council approve final adoption of Ordinance No. 4956 granting three (3) irrigation easements to the Roosevelt Water Conservation District (RWCD) within portions of Chandler Heights Road on either side of the Cooper Road intersection, at no cost, to accommodate the Cooper Road Improvement Project, from Alamosa Drive to Riggs Road.

22. Final Adoption of Ordinance No. 4948 Adopting Updated Versions of Public Works Design and Construction Standards

Move City Council approve final adoption of Ordinance No. 4948 adopting updated versions of previously adopted Public Works design and construction standards and amending Chapter 43, Section 43-5, Subsections 43-4.5.A, 43-4.5.B, 43-4.5.C, 43-4.5.D, 43-4.5.E, 43-4.5.G, and 43-4.5.I of the Code of the City of Chandler, relating to the adoption of these updated design and construction standards.

INFORMATIONAL

23. Study Session Minutes of the January 6, 2021, Planning and Zoning Commission Meeting

24. Regular Meeting Minutes of the January 6, 2021, Planning and Zoning Commission

ADJOURNMENT: The meeting adjourned at 6:24 p.m.

ATTEST: _____ _____
City Clerk Mayor

Approval Date of Minutes: February 25, 2021

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Study Session of the City Council of Chandler, Arizona, held on the 8th day of February 2021. I further certify that the meeting was duly called and held and that a quorum was present.

DATED this _____ day of February, 2021.

_____
City Clerk

unofficial

CHANDLER CITY COUNCIL
BUDGET WORKSHOP #1
Thursday, February 11, 2021

MINUTES OF THE BUDGET WORKSHOP #1 MEETING OF THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, held on Thursday, February 11, 2021, in the Chandler City Council Chambers Conference Room, 88 E. Chicago Street, Chandler, Arizona.

THE MEETING WAS CALLED TO ORDER BY MAYOR KEVIN HARTKE AT 4:31 P.M.

The following members of the Council were present:

Kevin Hartke	Mayor
Mark Stewart	Vice-Mayor
*René Lopez	Councilmember
OD Harris	Councilmember
Terry Roe	Councilmember
Christine Ellis	Councilmember
Matt Orlando	Councilmember

*Councilmember Lopez attended the meeting telephonically.

City staff present: Marsha Reed, City Manager; Kelly Schwab, City Attorney; Dana DeLong, City Clerk; Joshua Wright, Assistant City Manager; Debra Stapleton, Assistant City Manager; Ryan Peters, Governmental Relations and Policy Manager; Dawn Lang, Management Services Director; Matthew Burdick, Communications and Public Affairs Director; Micah Miranda, Economic Development Director; Cori Garcia, Mayor and Council Communications Manager; Matt Dunbar, Budget Manager; John Knudson, Public Works and Utilities Director; Andy Bass, Community Services Director; Rae Lynn Nielson, Human Resources Director; Kim Moyers, Cultural Development Director; Alicia Skupin, Acting Presiding Magistrate.

1. Budget Workshop #1, Presentation for Fiscal Year 2021-22

1. Opening Remarks

MARSHA REED, City Manager, introduced the discussion item.

DAWN LANG, Management Services Director, presented the following Power Point presentation.

- Agenda
    - Financial Outlook

        - FY 2021-22 Budget Outlook
        - FY 2020-21 National, State, and Local Economic Quarterly Update
    - FY 2021-22 Preliminary Budget
        - 5-Year Ongoing General Fund Forecast
        - Public Safety Personnel Retirement System (PSPRS)
        - Capital Improvement Plan (CIP)
        - Property Tax
    - Key Budget Dates
    - Closing remarks

2. Financial Outlook

- FY 2021-22 Budget Theme
    - Moving Forward Together
    - Our Vision
        - We are a world-class City that provides an exceptional quality of life
- FY 2021-22 Financial Outlook
    - Economy is in extended recovery mode from COVID-19 impacts
    - Growth of sustainable (ongoing) revenues potentially resetting based on new demand/trends
    - Development revenues continue contributing to one-time General Fund, but at a slower rate
    - Cautious that potential State legislative and Federal actions may threaten City revenues
- Sound Budgeting Practices Support Financially Sustainable Goal
    - Maintains AAA Bond Ratings from Moody s, Fitch, and S&P rating agencies
        - Continue adherence to all fiscal policies
        - Continue pay-down of pension obligations
    - Structurally balanced
        - Ongoing revenues support ongoing expenditures
        - One-time revenues support one-time expenditures
    - Maintain strong reserves
        - 15% General Fund contingency reserve
        - Budget Stabilization Reserve at a minimum of $10M
    - Manage expenditure growth
        - Maintain existing services
        - Maintain infrastructure
- Strong Fiscal Foundations Move Us Forward
    - Financial Policies
        - (Revised and adopted by Council January 14, 2016)
    - Operating Management
    - Capital Management
    - Reserves (Jan. 26, 2017) (Mar. 22, 2018)
    - Debt Management
    - Long-Range Financial Planning
    - Grant Management

- Investment
- Accounting, Auditing, and Financial Reporting
- Pension Funding (June 11, 2020)

MATT DUNBAR, Budget Manager, continued the Power Point Presentation.

- National and State Economic Update
- Economic Indicators
  - Construction Spend: +3.8% above November 2019
  - Business Formation Statistics: just over 1.1M new businesses added in Q4
  - Advance Monthly Sales for Retail & Food Service: +0.6% from prior month
  - Manufacturing & Trade Inventories: +1.32% from prior month
- Economic Forecast
  - National, State and local Unemployment
- Economic Forecast
  - 2020 4th Quarter Base Forecast
  - Phoenix-Mesa-Scottsdale MSA Forecast (Maricopa + Pinal Counties)

COUNCILMEMBER ORLANDO asked if the minimum wage is driving these numbers.

MR. DUNBAR said they could look into what is driving the numbers as the data comes from the University of Arizona.

MR. DUNBAR continued the Power Point presentation.

- City of Chandler Quarterly Update
- Building Permit Trend Analysis
  - Permit numbers remain strong
  - Adding to one-time
- Business Opening/Closing Analysis
  - Metrics gathered from Business Registration data
  - Businesses continue to register in the new online portal:
    - Closed from Mar. to Dec. : 213
    - Registered from Mar. to Dec. : 597
    - Net newly registered Businesses: 384*
    - * Renewal process helps distinguish between brand new businesses, and those that are just newly registered, providing a better picture as to new business starts

MAYOR HARTKE asked how these numbers compare to a normal year.
MR. DUNBAR said these numbers are similar to what they would see historically, but the trend is different regarding the types of businesses that have closed. There are industries that have been significantly impacted by COVID-19 such as restaurants and amusements and there are a high number of closures in those industry types.

MR. DUNBAR continued the Power Point presentation.

- Past Due Residential Utility Trend Analysis

- Delinquent utility accounts/balances that meet turn-off criteria has increased through Dec. 2020
- Continue working with Neighborhood Resources and non-profit partners on outreach for utility assistance
- Soft account notices began 10/19/20 and continue, but still no disconnections or late fees
- Anticipate resuming disconnects Monday, May 3, 2021

MAYOR HARTKE asked if the surrounding cities have already resumed disconnections.

MS. LANG said Mesa, Gilbert, and Avondale have started and there would be more cities that would be starting disconnections before Chandler. Ms. Lang said staff would provide that information to Council.

COUNCILMEMBER ORLANDO asked if there was additional data regarding the numbers such as locations or home types. Councilmember Orlando said there may be funds that could not be recovered because of the economic situation and asked if there was a contingency plan.

MS. LANG said there is an effort with Neighborhood Resources for utility assistance but there are different qualifying factors depending on the funding. Ms. Lang said they have not laid out the addresses on a GIS map and that could help better target notifications. Ms. Lang said staff is on their third round of notices to engage the citizens and businesses that are struggling and have worked on payment plans to avoid disconnection.

VICE MAYOR STEWART asked what all was included in the utility numbers.

MS. LANG said water, wastewater, solid waste, and reclaimed customers.

VICE MAYOR STEWART asked if CARES Act dollars could be used for that.

MS. LANG said the CARES dollars are being provided to the non-profit partners and residents are being directed to them to get assistance.

VICE MAYOR STEWART asked if there was a way to know who is struggling and who is taking advantage of the system, because this could impact the budget and other services they are able to provide.

MS. LANG said these are Utility Funds and would not impact the General Fund. Ms. Lang said this would impact the rate the utility customers pay.

COUNCILMEMBER ROE asked if there were penalties applied to the balances.

MS. LANG said they have not been charging late fees since March so the balance has not accrued interest or fees.

COUNCILMEMBER ROE asked how the fees are normally assessed.

MS. LANG said there is a 2% charge added for every month they are in arrears.

MR. DUNBAR continued the Power Point presentation.

- FY 2020-21 Revenue Update
  - General Fund Year-to-Date Revenues
  - FY 2020-21 Results through December 2020
    - Actual revenue $133M
    - 5.6% or $7M above same period prior year
    - COVID reduced Budget prorated based on historical trend $114M
    - Actuals above COVID reduced budget: $19M or 16.6%
  - FYs 16-21 Actuals through 2nd Quarter
- FY 2020-21 Expenditure Update
  - Chandler maintains a strong financial position I take the task of making sure we come in under budget very seriously, and to everyone s point, we will meet the budget according to the revenues we receive. Marsha Reed, City Manager, April 24, 2020
  - FY 2020-21 Results through December 2020
    - Actual spending $119K lower than prior year
    - 47.9% of COVID reduced budget spent vs.
    - 44.9% of prior year budget spent (less PSPRS payment)
    - Expenditures continue to be tracked closely
  - Quarter 2 Expenditures

COUNCILMEMBER ORLANDO asked how much has been expended of the AZ Cares dollars and what is left.

MS. LANG said staff would get that information to Council.

COUNCILMEMBER ORLANDO asked what was being done to fill employee vacancies.

MS. REED said there are 75 recruitments in progress and a total of 121 vacant positions currently.

COUNCILMEMBER ORLANDO said it seems they have made progress in the last few months.

MS. REED said yes as far as recruitments, but the vacancy has increased.

3. Preliminary
   a. 5-Year Ongoing General Fund Forecast

MS. LANG continued the Power Point presentation.

- Annual General Fund Revenues and Expenditures
  - Annual Inflows
    - 85% Local taxes and licenses and State shared revenues
    - 6% Charges for services (i.e., parks, rec., building, planning, library)

        - 3% Misc. Receipts (i.e., Interest Inc., fines, leases, surplus sales)
        - 6% Property tax and Indirect costs
    - Annual Outflows
        - 77% Personnel (Wages/Benefits)
        - Ongoing Base Budget (i.e., Ops./maint., supplies, utilities)
        - One-time decision package needs (i.e., consultants, pilot programs)
        - Transfers to replacement funds
    - If Revenues exceed Expenditures, General Fund Balance increases
- Preliminary 5-Year Ongoing General Fund Forecast
    - Chandler continues to be Structurally Balanced
    - The ongoing forecast reflects expenditures that are supported by sustainable revenue growth
- Preliminary Ongoing General Fund Forecast Revenues
    - FY 2021-22 preliminary revenues are $267.9M
    - Over 86% is vulnerable to economic volatility
    - FY 2020 85%
        - Ongoing
            - Increases by 2.6% ($5.6M) over prior year ongoing
            - Local Sales Tax support 54% and State shared supports 29% of total
            - Forecasting gradual ongoing growth of 1.8% to 2.6%
    - FY 2021- 82%
        - One-time
            - Higher one-time revenue results in lower ongoing %
            - 18% ($47.9M) of total revenues considered one-time
            - Continued development/retail affecting sales tax collections and permit revenue
    - Revenues based on actuals through December 2020 Addl data from League & County on next update
- Ongoing and One-Time Sales Tax Revenues
    - Ongoing sales tax revenues reflect growth over time
    - One-time sales tax revenues fluctuate due to economic volatility
    - Local Sales Tax Revenue Ongoing vs. One-Time
- Preliminary 5-Year Ongoing General Fund Forecast Personnel Expenditures
    - Carefully Tracked
        - Largest ongoing expenditure (77% of total exp. & 0.4% over prior year personnel)
        - Position counts unchanged: Total all funds 1,694 FTE (81.5% General Fund)
    - Cost Adjustments Included
        - Benefits changes: Health, Retirement (ASRS and PSPRS), & Workers Comp
        - FY 2021-22 MOU chgs: Police/Fire Merit (5%) Fire Market (0.75%) Police Shift diff (+$.10)
    - Cost Adjustments Excluded
        - No FY 2021-22 General Employee merits & markets (No market given to Generals in FY 2020-21)
        - No merits or markets included FY 2022-23 & beyond for any employee
    - Major Impacts

- Increased General Fund vacancies from 59 to 85 (+44%) (Vacancy savings rate under review)
- 10 add l Public Safety sworn entered DROP (reduced PSPRS employer contrib.)

MS. REED said Human Resources is working on gathering information on comparative cities across the Valley. Ms. Reed said General may have slipped up to 4% in the market and that may be creating some issues. Ms. Reed said there would be recommendations coming forward on merits and markets.

COUNCILMEMBER ORLANDO said he supported the market survey to keep Chandler competitive. Councilmember Orlando said there are 10 public safety staff in the DROP program and asked when they begin recruiting for those positions.

MS. REED said staff evaluates that each year with both Chiefs and more are entering DROP than anticipated. Ms. Reed said both Chiefs are authorized to hire up to their reserves and compliment. In police it is hard to get the recruits in the door.

COUNCILMEMBER ORLANDO said there are funds to hire, but difficult to find the people.

MS. REED said yes.

MAYOR HARTKE said they have a five-year window from the time someone enters DROP.

MS. REED said they are seeing people enter DROP and then retire before the five years is completed, which is creating some issues.

COUNCILMEMBER HARRIS asked what the retirement age is for police officers.

MS. REED said around 20 years as a police officer.

MS. LANG continued the Power Point presentation.

- Preliminary 5-Year Ongoing General Fund Forecast Expenditures
  - Prioritize Ongoing Demands (Maintain > Enhance > New)
  - Other Expenditure Projections Unchanged from Prior Year Forecast
    - Department ongoing base budgets unchanged
    - Reestablished Council Contingency ($75K ongoing and $325K one-time)
    - O&M on projected capital projects based on current CIP
    - Self Insurance fund contribution projections unchanged
  - Remaining Ongoing Surplus of $2.1M Uses
    - Change general employee wages/benefit (impacts hiring & retention)
    - Maintain, enhance, or add to existing service levels (utilities, service contracts, supplies, staffing)
  - FY 2021-22 Department General Fund decision packages under review
    - $6.0M ongoing requests
    - $8.1M one-time requests

- Includes 22 positions requests

COUNCILMEMBER ROE asked if the internet sales were included in the December sales.

MS. LANG said yes, that has impacted our sales tax revenues. Ms. Lang said they have always seen online sales from larger stores, but now they are starting to see other internet sales.

COUNCILMEMBER HARRIS asked how the online sales are tracked.

MS. LANG said the State collects the tax and when an online retailer reports that revenue they have a code for where the sale was done which then sends the funds to Chandler.

COUNCILMEMBER HARRIS said if a small business does business online how those businesses are tracked.

MS. LANG said it is similar and it is expected those businesses would create an account with the State and would send the tax collected to the State and show the information on where the sales were done.

COUNCILMEMBER HARRIS asked if the State takes the lead for that process.

MS. LANG said yes, but the City does help if Chandler businesses have questions.

MS. LANG continued the Power Point presentation.

- Determine Priorities for One-Time Dollars
  - New Capital
  - Maintain Existing Capital
  - Reduction of Pension Debt
  - Replenish Reserves
  - Operations and Maintenance

b. Public Safety Personnel Retirement System (PSPRS)

- PSPRS Net Unfunded Liability Balances Update

MAYOR HARTKE said Chandler is being responsible and paying down the balance and asked how other cities are responding.

MS. LANG said the public safety retirement system has been better at sharing information to help cities understand. The more information that is shared the more cities are talking about it, but it certainly has been something that is difficult to address.

COUNCILMEMBER HARRIS asked at the current rate when the debt is expected to be completed.

MS. LANG said there is a requirement to have the debt paid in a certain amortization period and there are 16 years remaining, and it is a requirement to have a financial policy to address this. She said they have looked at numerous options to pay down the liability and Chandler has chosen to use one-time dollars to make additional payments.

COUNCILMEMBER HARRIS asked if there was interest on the outstanding balance.

MS. LANG said it is costing more the longer the liability is outstanding. The more they can pay off now the more savings there would be in the future.

COUNCILMEMBER HARRIS asked what the interest rate was currently.

MS. LANG said the actuarial assumptions is 7.3% annually. In years where they do not meet those earnings the pension liability grows.

VICE MAYOR STEWART asked if it would make sense to pay off the debt in the future because of the inflation rate increases because of the money that has flooded the market from the CARES Act.

MS. LANG said the pension fund is held in its own set of investment and is influenced by the open market. Ms. Lang said using the PSPRS modeler there is a much greater benefit to pay it off early because of the offset of the City s earnings versus the PSPRS earnings.

VICE MAYOR STEWART asked if the cities or the State is responsible for the outstanding balance.

MS. LANG said the City is responsible and there is no anticipation of a bailout.

VICE MAYOR STEWART asked if the CARES Act money in the community and inflation has been factored into this.

MS. LANG said it has not, but they are looking how that impacts investment markets.

COUNCILMEMBER ROE said if that helps the markets perform there should be a benefit to the investments. Councilmember Roe said once this liability is paid it will allow future Councils do great things.

MS. LANG said they are already seeing great returns.

MS. LANG continued the Power Point presentation.

- PSPRS Actuarial Report Results 6/30/20
    - Unfunded Liability decreased $9.4M from Prior Year s total of $180.5M
        - Police $114.4M
        - Fire $ 56.7M
        - Total $171.1M
    - Employer Contribution decreased $340K from Prior Year s total of $19.4M
        - Police $12.8M

        - Fire $6.3M
        - Total $19.1M
    - Normal portion of contribution 28%
    - Unfunded portion of contribution 72%
- FY 2020-21 Pay-Down Plan Benefits (point in time in 2019 modeler)
    - Assumed all actuarial corrections made
    - Making additional payments up front:
        - The annual Employer Contributions are reduced $113.4M over 17 years
        - Unfunded Liability is $20M less by year 17
    - Total Savings $133.4M for an investment of $67.7M
    - New 2020 PSPRS modeler received beginning of February 2021 with actuarial updates
- PSPRS Contributions in FY 2020-21 One-Time Forecast
    - Recommend continuing planned commitment of additional annual one-time payments to reduce PSPRS pension liability
    - Increase when possible of offset investment losses
    - Total One-Time Funding $5.5M of payment goes towards Employer Contribution

COUNCILMEMBER ORLANDO asked how much ASRS increased.

MS. LANG said $243,000.

MS. LANG continued the Power Point presentation.

- 6/30/20 Assumptions
    - Assumed investment rate of return of 7.3% unchanged
        - Actual only 5.4% smoothed over 7 years
    - Payroll growth assumption of 3.5% too high
        - Beginning FY 2022-23: 7 year plan to reduce 0.5%/year
    - Started layered amortization approach for investment gains/losses
    - Results are Slow but Effective
    - Pay-down plan formulated 2015
    - Overpayments began FY 2016-17 with $38.2M reflected thru 6/30/20 actuarial report, and $15M FY 2020-21 overpayment reflected in next report
    - Unfunded liability and rates are going down by staying the course
    - Chandlers funded levels have increased
        - Police lowest 52.9%, now 62.7%
        - Fire lowest 61%, now 68.6%

c. Capital Improvement Plan (CIP)

MR. DUNBAR continued the Power Point presentation.

- Fiscal Foundations Moving Us Forward
    - Current 10-Year CIP Council Guidelines
    - Council CIP guidance
        - Minimize increase in property taxes
        - Maintain existing infrastructure

    - Finish planned construction of streets and parks
    - Limit new projects adding ongoing operations & maintenance
    - Address public needs
- Continue Focus on Chandler s Aging Infrastructure
    - 65 square miles
    - 2,090 miles of streets
    - 30,000 streetlights
    - 225 signalized intersections
    - 1,228 miles of potable water lines
    - 941 miles of sanitary sewer
    - 31 operating wells
    - 67 developed parks (1,281 acres)
    - 48 lighted fields
    - 51 municipal buildings
    - 781 fleet vehicles/trucks
    - Maintaining high quality of life for our 266,800 residents
- Capital Projects Under Review in the 10-Year Plan
    - A bond election will be needed to support all the projects in the CIP
    - Various community/regional park improvements
    - Remaining arterial street projects, Alma School, Ocotillo Road and Chandler Heights Road projects
    - Existing street, park, facility and utility infrastructure maint.
    - Technology and fiber projects
    - Public Safety projects and maintenance of replacement of capitalized equipment
    - Fire station 2 construction
    - Critical Airport needs, including Cooper Road collector
    - Utility infrastructure rehab/replacements
    - Leaving secondary tax rate flat at $0.87 with a 4% estimated increase in assessed value, generates $1.1M for debt service on bonds

d. Property Tax Update

- Preliminary Property Tax Update
    - Assessed Values Not Yet Received
- Property Tax Rate Comparison
    - FY 2020-21 (per $100 of Assessed Valuation)

VICE MAYOR STEWART said they are seeing a large increase in property values and asked if they are thinking of tax rate reduction.

MS. LANG said that would be up to Council and would be a reduction of General Fund dollars. She said they are considering maintaining the rate, but staff would bring forward an analysis of what a lower rate would look like.

MS. REED said if there are rate reductions some of the projects that would be presented from the Citizen Bond Committee would not happen as the projections are based on the assumption of the same tax rate and property value increases.

MR. DUNBAR continued the Power Point presentation.

- Impact of FY 2020-21 Tax Rate Reduction on Median Value Homeowner
  - Increases on Primary property tax rate are capped at 5%
  - Anticipate Assessed Values for FY 2021-22 by 2nd week in February
- Breakdown of $1 of Typical Chandler Property Tax Bill
  - Typical Tax Bill Cents from Every Dollar Taxed
    - City of Chandler 9.8 cents
    - Maricopa County & Special Districts 22.7 cents
    - Public Schools and Community College Districts 67.5 cents
    - Based on 2019 Tax Bill information. Exact split will vary depending on the school district and any other special taxing districts on the bill.

4. Key Dates

- Key Budget Dates
  - Citizen Budget Survey Completed
  - Council Budget Kickoff Completed
  - Workshop One with Mayor and Council Today
  - Budget Input Time Citizen Outreach Media Events Kicks off in early march
  - Workshop Two with Mayor and Council March 25, 2021
  - All Day Budget Brief April 23, 2021
  - Council Meetings
    - Amendment Discussion May 13, 0221
    - Tentative Adoption May 27, 2021
    - Public Hearing and Final Adoption June 10, 2021
    - Adoption of Tax Levy June 24, 2021

5. Closing Remarks

COUNCILMEMBER HARRIS asked if the City could receive funds at a lower interest rate than PSPRS to pay off the debt faster.

MS. LANG said the 7.3% is the assumed interest rate that the money is earning. The City does not pay interest, but the liability does get more expensive over time.

COUNCILMEMBER HARRIS clarified there is no interest on the money owed.

MS. LANG said that was correct.

ADJOURNMENT: The Budget Workshop #1 was adjourned at approximately 6:04 p.m.

ATTEST: _____ _____
City Clerk Mayor

Approval Date of Minutes: February 25, 2020

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Budget Workshop #1 of the City Council of Chandler, Arizona, held on the 11th day of February, 2021. I further certify that the meeting was duly called and held and that a quorum was present.

DATED this _____ day of February, 2021.

_____
City Clerk

unofficial

CHANDLER arizona

CITY OF CHANDLER COUNCIL MEETING MINUTES
Regular Meeting
Thursday, February 11, 2021

MINUTES OF THE REGULAR MEETING OF THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, held in the City of Chandler Council Chambers, 88 E. Chicago St., Chandler, Arizona, on Thursday, February 11, 2021.

THE MEETING WAS CALLED TO ORDER BY VICE MAYOR MARK STEWART AT 6:10 P.M.

The following members answered roll call:

Kevin Hartke	Mayor
Mark Stewart	Vice Mayor
*René Lopez	Councilmember
OD Harris	Councilmember
Christine Ellis	Councilmember
Terry Roe	Councilmember
Matt Orlando	Councilmember

Councilmember Lopez attended telephonically.

Also in attendance:

Marsha Reed	City Manager
Joshua Wright	Assistant City Manager
Debra Stapleton	Assistant City Manager
Kelly Schwab	City Attorney
Dana DeLong	City Clerk

INVOCATION: The invocation was given by Susan Stevens-Clarke, Chandler Bahai Community.

PLEDGE OF ALLEGIANCE: Councilmember Harris led the Pledge of Allegiance.

CONSENT AGENDA DISCUSSION
None.

CONSENT AGENDA MOTION AND VOTE

COUNCILMEMBER ORLANDO MOVED TO APPROVE THE CONSENT AGENDA OF THE FEBRUARY 11, 2021, CITY COUNCIL MEETING; SECONDED BY COUNCILMEMBER ROE.

MOTION TO APPROVE THE CONSENT AGENDA CARRIED UNANIMOUSLY (7-0).

CONSENT AGENDA ITEMS

1. January 2021 Council Minutes
Move to approve the Council meeting minutes of the Study Session and Special Meeting of January 25, 2021, and the Regular Meeting of January 28, 2021.

2. Resolution No. 5434, Authorizing a Wireless License Agreement with CCTMO, LLC, for the Existing Monopalm Tower Adjacent to the Police Department Property and Evidence Yard
Move to approve Resolution No. 5434, authorizing the Mayor to execute the license agreement between the City of Chandler and T-Mobile West Tower, LLC, by and through CCTMO, LLC, for the existing Monopalm macro cell site currently located at the Police Property and Evidence Yard at 576 W. Pecos Road, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

BACKGROUND FROM COUNCIL MEMO:
Chapter 46 of the Chandler City Code sets forth the City's requirements for encroachment permits for use of the City's rights-of-way and public property, as well as the licensing requirements for telecommunications companies. On November 24, 2003, the City Council granted Voice Stream PCS III Corporation, a subsidiary of T-Mobile USA, Inc., a use agreement and encroachment permit to house facilities to provide wireless telecommunication services at the City's Police Property and Evidence Yard. The Council consented to the transfer of the agreement to T-Mobile USA, Inc., on October 26, 2006, via Resolution No. 4013 after restructuring occurred to reduce the total number of T-Mobile subsidiaries. On January 24, 2013, via Resolution No. 4664, the Council again consented to the transfer of the agreement from T-Mobile to T-Mobile West Tower, LLC, as another corporate restructuring move.

This Resolution No. 5434 grants a five-year license agreement, with three additional five-year extension periods, to CCTMO for non-exclusive use of the site pursuant to Chapter 46 and State law. This agreement also requires the company to adhere to requirements set by Chapter 35 of the City Code related to Wireless Communications Facilities. The City's Police, Fire, and Development Services departments have reviewed and are satisfied with the requirements specified in the proposed agreement and have found no interference issues that would present a problem to the City's emergency communications system.

FINANCIAL IMPLICATIONS
The licensee will pay permit, inspection, and pavement damage fees, as applicable. CCTMO will also pay $1,665.63 in rent per month for the site, up from the current $1,412.97 per month. For each additional third-party permitted to collocate at the site, the licensee will pay an additional $365.93 per month. Provisions for annual rent increases of 2.5% of the total due are detailed in the agreement. A 2.75% transaction privilege tax also applies to any non-interstate telecommunication services.

3. Resolution No. 5435, Authorizing a License Agreement with Cellco Partnership, dba Verizon Wireless, for the Existing PHO Rubenstein Marco Cell Site
Move to approve Resolution No. 5435, authorizing the Mayor to execute the wireless license agreement between the City of Chandler and Cellco Partnership, dba Verizon Wireless, for the existing PHO Rubenstein macro cell site, located at the east side of Cooper Road and south of Buchanan Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

BACKGROUND FROM COUNCIL MEMO:

Chapter 46 of the Chandler City Code sets forth the City's requirements for encroachment permits for use of the City's rights-of-way and public property, as well as the licensing requirements for telecommunications companies. Cellco Partnership, doing business as Verizon Wireless, is a wireless telecommunications company with wireless antennas and facilities already installed at a site designated as PHO Rubenstein. The macro cell site is located in the right-of-way on the east side of Cooper Road south of Buchanan Street. Verizon's facilities are located on Salt River Project (SRP) property, which is located on a utility easement in City right-of-way. This existing site came under Chandler jurisdiction with the transfer of right-of-way of Cooper Road to the City of Chandler from the Town of Gilbert through the adoption of Ordinance No. 4822, which was approved by City Council on June 14, 2018. The right-of-way was annexed to meet the terms of a 1987 Intergovernmental Agreement between the City of Chandler and the Town of Gilbert which specifies roadway ownership and maintenance responsibilities as the two municipalities develop.

Resolution No. 5435 grants a ten-year license with one ten-year, non-exclusive use agreement to Cellco Partnership at the site pursuant to Chapter 46 and is consistent with State law. This agreement also requires the company to adhere to requirements set by Chapter 35 related to Wireless Communications Facilities. The City's Police, Fire, and Development Services departments have reviewed and are satisfied with the requirements specified in the Agreement and have found no interference issues that would present a problem to the City's emergency communications system.

FINANCIAL IMPLICATIONS
The City has received a $3,000 application fee to cover the cost of processing this application. The company will pay permit, inspection, and pavement damage fees, if applicable. Cellco Partnership will also pay the City $1,001.94 per month for use of the right-of-way, with provisions for rate increases of 3.5% annually detailed in the agreement. A 2.75% transaction privilege tax also applies to any non-interstate telecommunication services. Cellco Partnership will also pay $31,122.56 in arrearages for right-of-way use from the time of right-of-way transfer in 2018 escalated from the 2018 monthly rate of $935.32.

4. Resolution No. 5436, Authorizing an Intergovernmental Agreement with Maricopa County Regarding Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot for the Loop 101 Price Freeway

Move City Council pass and adopt Resolution No. 5436 authorizing an Intergovernmental Agreement (IGA) between Maricopa County and the City of Chandler regarding the Regional Emergency Action Coordinating Team (REACT) Integrated Corridor Management (ICM) Pilot Project for the Loop 101 Price Freeway.

BACKGROUND FROM COUNCIL MEMO:
This Intergovernmental Agreement (IGA) would allow Maricopa County's REACT Team to respond to events on or near the Loop 101 Price Freeway. This effort is part of a region-wide pilot project for integrated corridor management (ICM) intended to ensure efficient and timely response to these incidents that have large, area-wide traffic impacts. During events that require the closure of at least two hours of the Loop 101 freeway or a freeway ramp, forcing traffic to divert onto adjacent arterial roadways, REACT coordinates with state and local public safety and the City's Traffic Management Center (TMC) staff to establish detour routes and support diversion of traffic onto these routes and back on the freeway upstream of the closure. This resource will benefit the City and its residents by

improving the safety and security at incident scenes and minimizing congestion affecting the traveling public.

The City's main role in this project will be to work with Maricopa County's Department of Transportation (MCDOT) to develop preapproved detour routes for major incidents on Loop 101. The City is also agreeing to allow REACT teams in the City's right-of-way and assigning two main contacts (one from the Police Department and one from the TMC) to act as liaisons with REACT. This agreement represents a three-year pilot project funded entirely with federal Congestion Mitigation and Air Quality (CMAQ) funds (no local funds are required). The IGA is scheduled to be voted on by the Maricopa County Board of Supervisors on February 24, 2021.

5. Resolution No. 5437, Introduction of Ordinance No. 4960, PLH20-0033 and PLH20-0034 Chandler La Paglia High School Seminary and Professional Offices

Area Plan

Move City Council approve Resolution No. 5437 Southeast Chandler Area Plan amendment, PLH20-0033, located south of the southwest corner of Gilbert and Ocotillo roads, as recommended by Planning and Zoning Commission.

Rezoning

Move City Council introduce and tentatively adopt Ordinance No. 4960 approving PLH20-0034 La Paglia High School Seminary and Professional Offices, Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

Preliminary Development Plan

Move City Council approve Preliminary Development Plan PLH20-0034 La Paglia High School Seminary and Professional Offices, for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

BACKGROUND FROM COUNCIL MEMO:

Site is approximately 1.7 net acres. Annexation request is scheduled for the February 11, 2021, City Council meeting to request Initial City zoning of Agricultural District (AG-1). Annexation public hearing held on October 15, 2020. Site is currently vacant.

Surrounding Land Use Data

North	Commercial (Unincorporated - Arizona Olympian Gymnastics)	South	Commercial (Dollar Self storage)
East	Gilbert Rd. then new Chandler Unified School District high school	West	RWCD Canal

General Plan and Area Plan Designations

	Existing	Proposed
General Plan	Neighborhoods	No change
Southeast Chandler Area Plan	Envisioned Community/Regional Open Space and Recreational Opportunities	Traditional Suburban Character

Proposed Development

Seminary	
Building Area	3,681 sq. ft. (+ 1,329 sq. ft. future expansion) Total of 5,010 sq. ft.
Building Height (max.)	22 ft.
Parking Required	25 spaces total (includes future expansion)
Parking Provided	27 spaces total
Future commercial offices/medical offices	
Building Area	6,336 sq. ft.
Building Height (max.)	30 ft.
Parking Required	43 additional spaces (1 space per 150 sq. ft.)
Parking Provided	70 total shared spaces

Review and Recommendation

Planning staff finds the proposal is consistent with the General Plan designation of Neighborhoods and the amendment to the Southeast Chandler Area Plan (SECAP). The Envisioned Community/Regional Open Space and Recreational Opportunities land use designation was identified at a time when the City owned property along the RWCD canal; however, the City property was sold and a regional open space and recreational area is no longer planned. A Traditional Suburban Character land use allows single story buildings along arterial streets, including for commercial and institutional/educational developments.

The request for rezoning to PAD provides for a limited list of permitted land uses which include the seminary (institutional/educational), general office, professional office, which generate low-traffic including but not limited to insurance, counseling, assisted living, real estate and title companies. Prohibited uses include medical and dental offices, retail of any kind, call centers, cleaners, barbers, personal services, animal boarding and similar businesses.

The site layout and building architecture is in conformance with the SECAP design guidelines for commercial/non-residential land uses. Architectural design of the future professional office building requires a new PDP application to evaluate building architecture. Signage for the future phase may require a PDP if the development prefers to modify the requirements of the Sign Code for PAD zoned properties. The seminary proposes one wall-mounted sign. Staff finds the proposal to be consistent with the goals of the General Plan and the SECAP, as amended, and recommends approval subject to conditions.

Traffic Analysis

Gilbert Road is currently undergoing improvements from Ocotillo to Chandler Heights roads. Improvements consist of re-striping, narrowing medians to allow for three lanes in the northbound and southbound direction, and modifications to the medians for turning movements. Traffic signals are proposed at two locations including the intersections of Gilbert and Brooks Farm road and the alignment of the existing driveway of the Olympian Gymnastics with the new entrance to the new high school. Pedestrian crossings will be designated at both traffic signals. The applicant states that the students will be transported by shuttle between the new high school and the new seminary.

Public / Neighborhood Notification
This request was noticed in accordance with the requirements of the Chandler Zoning Code. A Neighborhood Meeting sign was posted on the property. A virtual neighborhood meeting was held on December 3, 2020. Three residents attended virtually to obtain project information. No questions were asked. No opposition to request was stated. An attendee commented the project is a nice fit. As of writing this memo, Planning staff is not aware of opposition to the request.

Planning and Zoning Commission Vote Report
Planning and Zoning Commission meeting January 20, 2021.
Motion to Approve.
In Favor: 7 Opposed: 0

Commission discussed the proposed permitted land uses and recommended that medical and dental office uses be prohibited uses due to traffic and circulation patterns both on site and off site. Stipulations No. 2 and No. 3 are revised to address Commission's direction.

Recommended Conditions of Approval
Rezoning
Planning and Zoning Commission recommends the City Council approve rezoning from Agricultural District (AG-1) to PAD for professional offices and institutional/educational uses, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Chandler La Paglia High School Seminary and Professional Offices" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0034, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.
2. The following uses shall be permitted:
   Institutional uses including church, seminary, nursing home, and educational entity.
   Commercial Office uses including general office, professional office, insurance, counseling, real estate and title companies.
   Other similar institutional and/or office uses not listed here may be permitted upon determination by the Planning Administrator that it will not generate a greater or more intense traffic impact on the area.
3. The following uses shall be prohibited: medical and dental offices, retail, call centers, dry cleaners, personal services (e.g., barber, nail and beauty salons, tattoo, day spa), animal daycare and boarding, bakery, bars, drive-through and restaurants.
4. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.
5. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.
6. Prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/lot developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that the subdivision is located adjacent to or nearby a City of Chandler water facility/recharge ponds that may cause adverse noise, odors, and other externalities. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot property

deeds shall include a disclosure statement outlining that the site is adjacent to or nearby a wastewater treatment facility, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. The disclosure shall be presented to prospective homebuyers on a separate, single form for them to read and sign prior to or simultaneously with executing a purchase agreement. This responsibility for notice rests with the homebuilder/lot developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

Preliminary Development Plan
Planning and Zoning Commission recommends the City Council approve the Preliminary Development Plan, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Chandler La Paglia High School Seminary and Professional Offices" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0034, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.
2. A separate Preliminary Development Plan approval shall be required for the future building (Phase 2).
3. The site shall be maintained in a clean and orderly manner.
4. The landscaping in all open-spaces shall be maintained by the property owner or property owners' association, and shall be maintained at a level consistent with or better than at the time of planting.
5. The landscaping in all rights-of-way shall be maintained by the adjacent property owner or property owners' association.
6. Landscaping plans (including for open spaces, rights-of-way, and street medians) and perimeter walls shall be approved by the Planning Administrator.
7. Sign packages, including free-standing signs as well as wall-mounted signs, shall be designed in coordination with landscape plans, planting materials, storm water retention requirements, and utility pedestals, so as not to create problems with sign visibility or prompt the removal of required landscape materials.
8. Preliminary Development Plan approval does not constitute Final Development Plan approval; compliance with the details required by all applicable codes and conditions of the City of Chandler and this Preliminary Development Plan shall apply.

6. Introduction of Ordinance No. 4962, Annexation and Initial City Zoning ANX20-0002 for Approximately 1.71 Acres and Zoning to Agricultural District (AG-1), Located South of the Southwest corner of Gilbert and Ocotillo Roads

Move City Council introduce and tentatively adopt Ordinance No. 4962 approving Annexation and Initial City Zoning ANX20-0002, South of the Southwest Corner of Gilbert and Ocotillo roads, as recommended by Planning staff.

BACKGROUND FROM COUNCIL MEMO:
Located south of the southwest corner of Gilbert and Ocotillo roads. Zoned Rural-43 (RU-43) within Maricopa County. Approximately 1.71 acres. Council Public Hearing held on October 15, 2020. An Area Plan Amendment, Rezoning, and Preliminary Development Plan also are on this City Council Agenda

Surrounding Land Use Data

North	Unincorporated Maricopa County (Arizona Olympian Gymnastics)	South	Commercial (Dollar Self storage)

East	Gilbert Road, then new CUSD high school (under construction)	West	Canal, then City of Chandler water reclamation facilities

General Plan and Area Plan Designations

	Existing	Proposed
General Plan	Neighborhoods	No change
Southeast Chandler Area Plan	Envisioned Community/Regional Open Space and Recreational Opportunities	Traditional Suburban Character

Utility Service
Existing municipal water service, wastewater service, and reclaimed water are available in Gilbert Road.

7. Introduction of Ordinance No. 4961, PLH20-0023, PLT20-0037 Pecos and McQueen Retail (Staff requests Continuance to the February 25, 2021, Council Meeting)
Move City Council continue PLH20-0023 Pecos and McQueen Retail, located at the southwest corner of Pecos and McQueen roads, to the February 25, 2021, City Council meeting, as recommended by Planning and Zoning Commission.

BACKGROUND FROM COUNCIL MEMO:
At the January 20, 2021, Planning and Zoning Commission meeting, Commission continued the case to their February 17, 2021, meeting for the purpose of holding a Design Review Committee meeting to address concerns regarding the proposed drive-through pads. Planning and Zoning Commission recommends the City Council continue PLH20-0023/PLT20-0037 Pecos and McQueen Retail to the February 25, 2021, City Council meeting.

8. Final Adoption of Ordinance No. 4954, PLH20-0028 Hudson Crossings
Move City Council adopt Ordinance No.4954 approving PLH20-0028 Hudson Crossings, Rezoning from PAD multi-family to PAD single family for a single family development, located east of the northeast corner of McQueen Road and the Loop 202 Santan Freeway subject to the conditions as recommended by Planning and Zoning Commission.

BACKGROUND FROM COUNCIL MEMO:
Site is approximately 6.39 net acres. Site was zoned in 2007 as Planned Area Development (PAD) for multi-family (MF-3 standards), along with Area Plan Amendment on two acres of the 6.39 acre site from Special Use Commercial to High Density Residential 2007 approval included a stipulation requiring Preliminary Development Plan approval that was never submitted. Ordinance introduced and tentatively adopted on January 28, 2021.

Surrounding Land Use Data

North	Willis Rd. then City Water Treatment Facility	South	Loop 202 Santan Freeway
East	Consolidated Canal	West	Single family residential (under construction)

General Plan and Area Plan Designations

	Existing	Proposed
General Plan	Neighborhoods	No change
Chandler Airpark Area Plan (CAAP)	High Density Residential (12.1- 18 du/ac)	Low-Medium Density Residential (3.6-8 du/ac)

Proposed Development

	Gated single family subdivision
# of Lots	43 single family lots
Density	6.73 dwelling units per acre
Building Setbacks (min.)	Front - 10 ft. to livable, 20 ft. to garage Sides - 5 ft. Rear - 20 ft. to livable, 10 ft. to patio (plans 3 and 4)
Lot Size	Min. 3,200 sq. ft., 40 ft. by 80 ft.
Lot Coverage (max.)	55 percent
Building Height (max.)	30 ft. to midpoint of peak
Building Architecture	Desert Contemporary, Modern Spanish, Mid-Century, Modern Prairie
Parking Spaces	Two car garages per home 11 visitor parking spaces
Amenities	Airport-themed tot lot and ramada

Review and Recommendation
Planning staff finds the proposal is consistent with the General Plan designation of Neighborhoods and the proposed amendment to the Chandler Airpark Area Plan. The proposed density of 6.73 du/acre is lower than the existing site's multi-family zoning, which permits a density of up to 18 du/acre. The proposed density is also compatible with the 35 lot single family subdivision, located to the west, which is being developed at a density of 5.83 du/acre.

The subdivision is proposed as a gated community with unique site constraints including single vehicular access to an arterial road (McQueen Road) and located at the termination of a dead-end street (Willis Road). Due to the infill nature of the site, the Residential Development Standards (RDS) for subdivision layout are not applicable. However, the RDS guidelines remain applicable to the architectural design of the homes. The proposed single family residential subdivision meets the intent of development standards and residential design guidelines. Staff finds the proposal to be consistent with the goals of the General Plan and the CAAP, as amended, and recommends approval subject to conditions.

Traffic Analysis
A Traffic Impact Study is not required for this size of residential development, as it is expected to generate less than 100 trips in an hour. Transportation Engineering staff reviewed and confirmed that both McQueen Road and Wills Road have ample capacity to accommodate the additional traffic generated by this proposed development.

Public / Neighborhood Notification
This request was noticed in accordance with the requirements of the Chandler Zoning Code.

A virtual neighborhood meeting was held on October 28, 2020. Two residents attended virtually and asked questions regarding construction of a sound wall and vehicular turns from Willis Rd. onto McQueen Rd. and heading west on the Loop 202 Santan Freeway. No opposition to the project was stated. As of writing this memo, Planning staff is not aware of opposition to the request.

Airport Commission Conflict Evaluation
Airport Commission meeting November 18, 2020.
Motion to find a conflict with existing or planned airport operations.
In Favor: 5 Opposed: 0 Absent: 2 (Siegel, Kruse)

The Airport Commission reviewed the request in accordance with the Airport Conflicts Evaluation Process. The Airport Planning Administrator has issued a conflict evaluation report indicating that the Airport Commission determined that the proposed development does constitute a conflict with existing or planned airport operations. A copy of the report detailing the Airport Commission's findings is attached to this memo. The Airport Commission's recommended mitigation measures to address the operational conflicts are included as zoning stipulations.

Planning and Zoning Commission Vote Report
Planning and Zoning Commission meeting January 6, 2021.
Motion to Approve.
In Favor: 6 Opposed: 0 Absent: 1 (Heumann)

Recommended Conditions of Approval
Rezoning
Planning and Zoning Commission recommends the City Council approve rezoning from PAD multi-family to PAD single family, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Hudson Crossings" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0028, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.
2. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.
3. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.
4. Minimum setbacks shall be as provided below and further detailed in the Development Booklet:

Front Building Setback (min.)	10 feet to livable, 20 feet to garage
Side Building Setback (min.)	5 feet
Rear Building Setback (min.)	20 feet to livable, 10 feet to patio (plans 3 and 4)

5. The following stipulations shall be the responsibilities of the sub-divider/homebuilder/developer and shall not be construed as a guarantee of disclosure by the City of Chandler:

1. Prior to any lot reservation or purchase agreement, any and all prospective homebuyers shall be given a separate disclosure statement, for their signature, fully acknowledging that this subdivision lies within the Chandler Municipal Airport Impact Overlay District, as specified in the Chandler Zoning Code. The disclosure statement shall acknowledge the proximity of this subdivision to the Chandler Airport and that an avigational easement exists and/or is required on the property, and

further, shall acknowledge that the property is subject to aircraft noise and overflight activity. This document signed by the homebuyer shall be recorded with Maricopa County Recorder's Office upon sale of the property.

2. The subdivider/homebuilder/developer shall also display, in a conspicuous place within the sales office, a map illustrating the location of the subdivision within the Airport Impact Overlay District, as well as the noise contours and overflight patterns, as identified and depicted in the document entitled Chandler Municipal Airport, F. A. R. Part 150, Noise Compatibility Study, Noise Compatibility Program, Exhibit 6A (Potential Airport Influence Area), as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98). Such map shall be a minimum size of 24" x 36".
3. Compliance with this condition shall be demonstrated by the subdivider/homebuilder/developer by submittal of a signed affidavit and photograph that acknowledges this disclosure and map display prior to beginning any sales activity. Failure to comply with this condition will result in revocation of the Administrative Use Permit for the temporary sales office. All requirements as set forth in this condition are the obligation of the subdivider/homebuilder/developer and shall not be construed as a guarantee of disclosure by the City of Chandler.
4. The above referenced information shall also be included within the Subdivision Public Report to be filed with the State of Arizona Department of Real Estate, as required by Arizona Revised Statute 28-8486 and Arizona Revised Statute 28-8464.
5. The subdivider/homebuilder/developer shall provide the City with an avigational easement over the subject property in accordance with Section 3004 of the City of Chandler Zoning Code.
6. All homes and buildings shall be designed and built to achieve an interior noise level not to exceed 45 decibels (Ldn) from aircraft noise. A professional acoustical consultant, architect or engineer shall certify that the project's construction plans are in conformance with this condition.
7. The Final Plat shall contain the following statement on the cover sheet in a prominent location and in large text: "This property is located within the Chandler Municipal Airport Impact Overlay District and is subject to aircraft noise and overflight activity, and is encumbered by an avigational easement to the City of Chandler."
6. Prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/lot developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that the subdivision is located adjacent to or nearby a heliport at the Chandler Municipal Airport that may cause adverse noise, odors, and other externalities. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot property deeds shall include a disclosure statement outlining that the site is adjacent to or nearby a heliport, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. The disclosure shall be presented to prospective homebuyers on a separate, single form for them to read and sign prior to or simultaneously with executing a purchase agreement. This responsibility for notice rests with the subdivider/homebuilder/lot developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.
7. The development shall provide sound attenuation measures in accordance with ADOT standard details and requirements excepting any decibel reductions or sound attenuation credits for the use of a rubberized asphalt paving surface. Any noise mitigation, if required, is the responsibility of the development.
8. Prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/lot developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that the subdivision is located adjacent to or nearby a City of Chandler wastewater treatment facility that may cause adverse noise, odors, and other externalities. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot property

deeds shall include a disclosure statement outlining that the site is adjacent to or nearby a wastewater treatment facility, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. The disclosure shall be presented to prospective homebuyers on a separate, single form for them to read and sign prior to or simultaneously with executing a purchase agreement. This responsibility for notice rests with the homebuilder/lot developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

9. Homebuilder will advise all prospective homebuyers of the information on future City facilities contained in the City Facilities map found at www.chandleraz.gov/infomap, or available from the City's Communication and Public Affairs Department. The homebuilder shall post a copy of the City Facilities map in the sales office showing the location of future and existing City facilities.

9. Final Adoption of Ordinance No. 4955, PLH20-0048 Valerio at Ocotillo and Residence Inn Expansion

Move City Council adopt Ordinance No. 4955 approving PLH20-0048 Valerio at Ocotillo and Residence Inn Expansion, Rezoning from Planned Area Development for Medium Density Residential (PAD/MF-1) to PAD for Commercial, located east of the southeast corner of Queen Creek and Price roads subject to the conditions as recommended by the Planning and Zoning Commission.

BACKGROUND FROM COUNCIL MEMO:
The proposed modifications cover an area of approximately 0.61 acres. Downtown Ocotillo Area Plan and zoning approved by City Council on February 22, 2007. Residence Inn zoned as part of the larger Downtown Ocotillo development. Valerio at Ocotillo rezoned to PAD/MF-1 in 2018. Downtown Ocotillo includes a mix of uses including retail, restaurant, a four-story residential condominium, and a four-story hotel. Ordinance introduced and tentatively adopted on January 28, 2021.

Surrounding Land Use Data

North	Agriculture (proposed office)	South	Lake then Multi-family and office
East	Commercial retail and multi-family	West	Lake then office

General Plan and Area Plan Designations

	Existing	Proposed
General Plan	Employment	No change
Downtown Ocotillo Area Plan	Multi-family Residential (.61 acres)	Commercial (.61 acres)

Proposed Development

Valerio at Ocotillo	Existing/Approved	Proposed
Site Area	5.2 acres	4.59 acres
# of Units	32	26
Density	6.15 du/acre	5.66 du/acre
Visitor parking	8 spaces	9 spaces
Residence Inn	Existing	Proposed
Site Area	4.27 acres	4.88 acres
Building Area	107,025 sq. ft.	147,780 sq. ft.
Units/rooms	142	201
Height	59 feet 6 inches top of parapet	60 feet 2 inches top of parapet

Parking Required	142 spaces	201 spaces
Parking Provided	152 spaces	186 spaces
Setback to residential	85 feet required	30 feet

Review and Recommendation
Planning staff finds the proposal is consistent with the General Plan and the Downtown Ocotillo Area Plan. The proposed modifications to .61 acres of each site and the hotel expansion are compatible with the overall Downtown Ocotillo Master Planned development. The proposal complies with applicable residential and commercial development standards. The proposal essentially involves two parts: replacing six lots at Valerio at Ocotillo development (approved as "Ocotillo Patio Villas" in 2018) with parking, and allowing a reduced setback from a new Residence Inn building.

Six residential lots that were located on the southern end of Valerio at Ocotillo will be removed and replaced with additional parking for the new Residence Inn building. The revised property line between the Valerio and Residence Inn developments will be closer to the remaining residential lots. A portion of the site where the six lots are removed will be landscaped and effectively increase common open space for the residential development. A pedestrian gate and pathway from this development to the hotel site is to be maintained per the original approval. To ensure the installation of the gate and pathway, staff recommends this element as a stipulation.

The second component of the request is construction of one additional, four-story hotel building adjacent to the Valerio at Ocotillo development. The new Residence Inn building continues the Santa Barbara architecture style utilizing same color and materials as the existing hotel. Several waivers are requested to reduce parking, reduce the width of the dissimilar land use buffer along the north property line, and remove the parking lot diamond requirement.

The parking reduction is supported as cross-parking/access easements exist throughout Downtown Ocotillo and allow hotel customers to park in the commercial retail lots. The diamonds in the lot are supported. However, staff recommends that the landscape buffer be increased from five feet to ten feet to allow for sufficient space for plant growth and survival. The date palms existing in the parking lot should either remain or be replaced with date palms to continue the Downtown Ocotillo landscape theme. Staff recommends these revisions as stipulations. Staff finds the proposal to be consistent with the goals of the General Plan and the Downtown Ocotillo Area Plan, as amended, and recommends approval subject to conditions.

Public / Neighborhood Notification
This request was noticed in accordance with the requirements of the Chandler Zoning Code.
A Neighborhood Meeting sign was posted on the site. A virtual neighborhood meeting was held on November 19, 2020. Two residents registered for the event virtually and asked questions regarding traffic, parking, hotel amenities and construction timing. No opposition to the request was voiced. Positive feedback to the applicant was given by the attendees. Planning staff received one phone call asking about the number of total rooms and parking proposed for the hotel expansion. There is no known opposition to the request.

Planning and Zoning Commission Vote Report
Planning and Zoning Commission meeting January 6, 2021.

Motion to Approve.
In Favor: 6 Opposed: 0 Absent: 1 (Heumann)

Recommended Conditions of Approval
Rezoning
Planning and Zoning Commission recommends the City Council approve rezoning from Planned Area Development for Medium Density Residential (PAD/MF-1) to PAD for Commercial, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Valerio at Ocotillo and Residence Inn Expansion" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0048, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.
2. The minimum building setback for the hotel building shall be no less than 30 ft. from the north property line.

10. Final Adoption of Ordinance No. 4959, PLH20-0049 1st Pet Veterinary Centers

Move City Council adopt Ordinance No. 4959 approving PLH20-0049 1st Pet Veterinary Centers, Rezoning from Planned Area Development (PAD) to Planned Area Development Amended, adding veterinary clinic and like uses, located at 1257 W. Warner Road (West of the Southwest corner of Alma School and Warner Roads), subject to the conditions as recommended by the Planning and Zoning Commission.

BACKGROUND FROM COUNCIL MEMO:
Site was rezoned from Neighborhood Commercial (C-1) to Planned Commercial Office (PCO) in 1980. Site was rezoned again from Planned Commercial Office (PCO) to Planned Area Development (PAD) for PCO uses along with Preliminary Development Plan (PDP) for signage in 2016 to allow more flexibility with signage. The applicant currently operates a veterinary clinic on the adjacent parcel and seeks to expand to the subject site. Ordinance introduced and tentatively adopted on January 28, 2021.

Surrounding Land Use Data

North	Warner Rd., Single-family Residential - College Park	South	Single-family residential - Comanche Court
East	Veterinary Clinic (1st Pet Veterinary Centers)	West	Single-family residential - Brooks Crossing

General Plan and Area Plan Designations

	Existing	Proposed
General Plan	Neighborhoods	Neighborhoods

Proposed Development

Unit and Lot Size	Lot size: 1.23 acres Building A (existing): 5,349.5 Square feet Building B (existing): 5,359.5 Square feet
Parking Required	72
Parking Provided	75

Review and Recommendation
In 1980, The Warner Professional Center (subject site) was originally envisioned as a 6-acre office center. The site did not fully develop, leaving only the 1.23 acres it occupies today. In 1994, the adjacent 1.3 acre property to the east that was originally envisioned as an extension to the office center was rezoned from PCO to PAD for an Animal Hospital. Due to no construction after the approval, the property reverted back to PCO in 1995. The applicant returned in 1999 to rezone the adjacent 1.3 acre property to PAD for an Animal Hospital and subsequently developed a 7,500 square foot building. The remainder of the undeveloped office center to the south was rezoned for 12 single family residential lots in June of 1997, now known as Comanche Court neighborhood.

Today, 1st Pet Veterinary Centers, the adjacent business on the 1.3 acre property with the 7,500 square foot animal hospital, is looking to expand its veterinary clinic. The subject property is currently zoned PAD for PCO uses, which does not allow a veterinary clinic by right. Staff finds a veterinary clinic to be compatible with the PCO uses and the veterinary clinic it is adjacent to. The site meets the parking standards for a veterinary clinic. Although the veterinary clinic currently only plans on using building "A", the full site would be able to support a veterinary clinic if it chooses to use building "B" in the future. The site is able to do so by providing 75 parking spots while both buildings together parked at 150 square feet per parking space require only 72 parking spaces. For this reason, staff supports expanding the allowed uses to include veterinary clinics as well as medical and dental offices and similar uses that require the same amount of parking. All equipment, storage of animals and services will be required to be wholly contained within the building. Any outdoor animal uses will require an additional use permit approval from City Council. Planning staff finds the proposal to be consistent with the goals of the General Plan, and Planning and Zoning Commission recommends approval subject to conditions.

Public / Neighborhood Notification
This request was noticed in accordance with the requirements of the Chandler Land Use and Zoning Code. Due to COVID-19, the applicant hosted the required neighborhood meeting online as a video/phone conference on November 23, 2020 at 6:00pm. There were two participants at the neighborhood meeting. Both participants who live adjacent to the site indicated concerns regarding traffic noise, security lights being visible from the house, and the landscaping that was no longer there which led to the noise being more noticeable. In response, the veterinary clinic is looking into a solution for the light issue and landscaping. Another concern was parking on Comanche Drive. The clinic is hopeful that expanding the current veterinary facility general practice function to the new proposed location will help alleviate parking on Comanche Drive. The final concern was the location of the smoking area being near the adjoining wall of the properties and residents asked if it could be moved. Staff added conditions 2 - 5 to ensure missing landscaping is installed, exterior light sources are not visible, and the smoking area is moved away from residential properties. The applicant is in agreement with all of the conditions. At this time, staff has not received any further questions or complaints regarding the request.

Planning and Zoning Commission Vote Report
Planning and Zoning Commission meeting January 6, 2021.
Motion to Approve.
In Favor: 6 Opposed: 0 Absent: 1 (Heumann)

Recommended Conditions of Approval

Planning staff finds the request is in compliance with the General Plan and the Planning & Zoning Commission recommends approval of Rezoning from PAD to PAD Amended to allow PCO and Veterinary Clinic uses, subject to the following conditions:

1. The following uses shall be permitted: uses permitted in the Planned Commercial Office District, Veterinary Clinic, medical offices, dental offices and like uses.
2. Landscaping shall be in compliance with current Commercial Design Standards.
3. The landscaping in all open-spaces shall be maintained by the property owner or property owners' association, and shall be maintained at a level consistent with or better than at the time of planting.
4. All exterior light sources shall be averted away from adjacent residential properties.
5. The designated outdoor smoking area shall be setback a minimum of fifty (50) feet from adjacent residential properties.
6. Compliance with original conditions adopted by the City Council as Ordinance No. 4723 in case DVR16-0021, except as modified by condition herein.

11. New License Series 10, Beer and Wine Store Liquor License, for Tawa Inc., dba 99 Ranch Market #53

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 130676, a Series 10, Beer and Wine Store, for Kevin Arnold Kramber, Agent, Tawa Inc., dba 99 Ranch Market #53, located at 1920 W. Chandler Boulevard, and approval of the City of Chandler, Series 10, Beer and Wine Store Liquor License No. 300317 L10

BACKGROUND FROM COUNCIL MEMO:
This application for a liquor license was posted for hearing on February 11, 2021. The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 10, Beer and Wine Store Liquor License, the business may sell beer and wine only for off-premise consumption.

12. Professional Services Agreement with Wilson Engineers, LLC, for the Airport Water Reclamation Facility Membrane Pre-Design Services

Move City Council award Professional Services Agreement No. WW1901.202 to Wilson Engineers, LLC, for the Airport Water Reclamation Facility Membrane Pre-Design Services, in an amount not to exceed $198,560.

BACKGROUND FROM COUNCIL MEMO:
The City receives and treats wastewater from over 260,000 residents. Wastewater is treated to produce A+ quality reclaimed water, which is delivered through the City's reclaimed water distribution system for several beneficial uses including irrigation of golf courses, parks, and neighborhood common areas, industrial cooling water supply and recharge of the aquifer for gaining groundwater storage credits. As demand for reclaimed water increases, staff has been considering alternatives to supplement the reclaimed water supply. A feasibility study was recently completed to evaluate a concept to utilize the Salt River Project (SRP) canal adjacent to the Airport Water Reclamation Facility (AWRF), located at 905 E. Queen Creek Road, to deliver a small volume of Chandler's Salt River and Colorado River water supplies to a new treatment facility located at the AWRF site to supplement current reclaimed water supplies. This added supply will meet growing demands, allow for annual storage and recovery of SRP water, increase underground recharge, and enhance the wildlife habitats at Veterans Oasis Park. Using advanced membrane treatment technology, this new process could treat up to 7 million gallons per day. The system would be designed and constructed at the AWRF and utilize the existing reclaimed water infrastructure for distribution.

The project scope of work consists of evaluating water quality parameters and permitting assistance for the design of the advanced membrane treatment system to be used as part of this process. The contract completion time is 210 calendar days following Notice to Proceed. Additional contracts associated with this project for the remainder of the design, construction, and construction management will be brought forward at future City Council meetings.

13. Agreement with Metering Services, Inc., for Small Water Meter Installation, Repair, and Consulting Services
Move City Council approve Agreement No. PW1-936-4262 with Metering Services, Inc., for small water meter installation, repair, and consulting services, in an amount not to exceed $490,820.

BACKGROUND FROM COUNCIL MEMO:
The City maintains approximately 86,500 water meters. These meters record water use from residential, landscape, multi-family, commercial, government, school, medical and industrial water users. The life expectancy of a water meter based on industry standards is 15 years. Meters greater than 15 years old have a higher tendency to read inaccurately, resulting in incorrect billing or equipment failure. Staff routinely replace or repair failed meters to ensure customers are billed accurately. Due to the increasing number of meters that have reached the age for replacement, contractor assistance is required for meter installation.

As part of this agreement, the contractor will remove approximately 8,300 meters that have exceeded their life expectancy and replace them with meters compatible with the existing meter reading system and inventory. Included with the installation of these meters (ranging in size from 5/8-inch to 2-inch) are various replacements of lids and boxes to ensure compliance with standard detail specifications. The term on this agreement is 270 calendar days following Notice to Proceed. A related agreement with Core & Main, LP, for the purchase of water meters, is also scheduled for this City Council meeting.

14. Agreement No. PW0-890-4209, Amendment No. 1, with Core and Main, LP, for Water Meters
Move City Council approve Agreement No. PW0-890-4209, Amendment No. 1, with Core and Main, LP, for water meters, increasing the contract limit in the amount of $2,509,180, for a revised amount not to exceed $5,509,180, for a two-year period, September 1, 2020, through August 31, 2022.

BACKGROUND FROM COUNCIL MEMO:
The City maintains approximately 86,500 water meters. These meters record water use from residential, landscape, multi-family, commercial, government, school, medical and industrial water users. Staff routinely replace or repair failed meters to ensure customers are billed accurately. In addition to meter maintenance and replacement, staff installs meters for new customers connecting to the City's distribution system. This agreement authorizes the purchase of meters, registers, and meter parts compatible with the existing meter reading system, utility billing system, and inventory.

The life expectancy of a meter based on industry standards is 15 years. Meters greater than 15 years old have a higher tendency to read inaccurately, resulting in incorrect billing or equipment failure. Though staff routinely replaces or repairs failed meters, the increasing number of meters due for replacement requires additional meters to be purchased with this amendment. Included with the replacement of these meters (ranging in size from 5/8-inch to 2-inch) are various replacements of lids and boxes to ensure compliance with standard detail specifications. This Amendment will increase spending limit for

the City's water meter purchase agreement with Core and Main, LP, from $3,000,000 to $5,509,180 to purchase an additional 8,300 meters and 7,300 lids. Use of the City's existing meter purchase agreement provides the most cost-effective method to acquire the meter and meter-related parts needed for this project. A related agreement with Metering Services, Inc., for the installation of 8,300 replacement meters, is also scheduled for this City Council meeting.

15. Construction Contract with Cactus Asphalt, a Division of Cactus Transport, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project
Move City Council award Construction Contract No. ST1909.401 to Cactus Asphalt, a Division of Cactus Transport, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project, in an amount not to exceed $2,077,524.50.

BACKGROUND FROM COUNCIL MEMO:
The Environmental Protection Agency (EPA) has developed ambient air quality trends for particle pollution, also called particulate matter. PM10 describes inhalable particles with diameters that are generally ten micrometers and smaller. In 2007, Maricopa County approved a regional PM10 reduction plan imposed by the EPA. The City continues to perform alleyway rehabilitation to adhere to this regional plan.

The project scope of work consists of removing and replacing the top four to six inches of alley roadway surface material with crushed and compacted asphalt millings materials. The new alley roadway surface will be sprayed with an asphalt sealer to rejuvenate the binder in the millings. This project will reduce dust by providing an asphalt driving surface on approximately 15.7 miles of alleyways. The construction contract time is 150 days following Notice to Proceed. A related Professional Services Agreement with Tristar Engineering and Management, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project, is also scheduled for this City Council meeting.

16. Construction Contract with Archer Western Construction, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive)
Move City Council award Construction Contract No. WA2006.401 to Archer Western Construction, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive), in an amount not to exceed $1,202,980.

BACKGROUND FROM COUNCIL MEMO:
The City's Water Distribution Division currently maintains over 36,000 valves and 1,100 miles of pipe in the potable water system. This project is a continuation of a program to replace water mains that are susceptible to main breaks due to age and condition. The program evaluates water infrastructure, identifying high-priority water mains in need of replacement. Replacement of City water mains will result in improved system reliability and reduced liability from water damage as a result of main breaks. This project includes construction services to replace approximately 1,200 linear feet of water mains, ranging in size from 8-inch to 12-inch in diameter, located in Chandler Boulevard between Chippewa Place and Meadows Drive. In addition, water valves will be installed on Parklane Boulevard and Commonwealth Avenue to provide additional isolation capabilities in the area.

The project scope of work includes installation of new 12-inch ductile iron pipe (DIP) waterline, new 8-inch DIP waterline, associated water services and connections, removal and disposal of existing pipe, pavement, sidewalk, and landscape restoration. The contract completion time is 90 calendar days

following Notice to Proceed. A related Professional Services Agreement with Wilson Engineers, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive) construction management services, is also scheduled for this City Council meeting.

17. Professional Services Agreement with Wilson Engineers, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive)
Move City Council award Professional Services Agreement No. WA2006.451 to Wilson Engineers, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive), in an amount not to exceed $105,730.

BACKGROUND FROM COUNCIL MEMO:
The City's Water Distribution Division currently maintains over 36,000 valves and 1,100 miles of pipe in the potable water system. This project is a continuation of a program to replace water mains that are susceptible to main breaks due to age and condition. The program evaluates water infrastructure, identifying high-priority water mains in need of replacement. Replacement of City water mains will result in improved system reliability and reduced liability from water damage as a result of main breaks.

This project includes the replacement of approximately 1,200 linear feet of water mains, ranging in size from 8-inch to 12-inch in diameter, located in Chandler Boulevard between Chippewa Place and Meadows Drive. In addition, water valves will be installed on Parklane Boulevard and Commonwealth Avenue to provide additional isolation capabilities in the area. New development is anticipated in this area in the near future and this project will replace potable waterlines before adjacent development commences.

The project scope of work consists of contractor oversight, construction administration and inspection, utility coordination, schedule review, review of progress payments, attendance at construction meetings, review of shop drawings and submittals, preparation of final as-built drawings, and project close-out. The contract completion time is 120 calendar days following Notice to Proceed. A related Construction Contract with Archer Western Construction, LLC, for the Chandler Boulevard Waterline Replacement (Chippewa Place to Meadows Drive), is also scheduled for this City Council meeting.

18. Report of City Manager Emergency Authorization of Project Agreement with Garney Companies, Inc., Pursuant to Job Order Contract for the Lone Butte Effluent Pipeline Repair
Move City Council accept the report of the City Manager emergency authorization of Project Agreement No. WW2103.402 with Garney Companies, Inc., pursuant to Job Order Contract No. JOC1914.401, for the Lone Butte Effluent Pipeline Repair, in an amount not to exceed $111,220.02.

BACKGROUND FROM COUNCIL MEMO:
On Friday, September 4, 2020, the Public Works & Utilities Department was notified of a reclaimed water (effluent) main break located on the Gila River Indian Community (GRIC) downstream of the Lone Butte Wastewater Treatment Plant (LBWWTP). The City has a current lease agreement with GRIC for the operation and maintenance of the LBWWTP, which includes the effluent pipeline. Staff responded quickly by notifying GRIC Public Works personnel about the broken 36-inch diameter water transmission main.

The City and GRIC share a substantial interest in maintaining proper operation and long-term viability of this pipeline segment that delivers reclaimed water to a storage basin for GRIC's agricultural use. Due

to the impacts to an adjacent unpaved utility access road as well reclaimed water deliveries to GRIC, pursuant to City Code Chapter 3, Section 3-13.3 Special Circumstances-Emergencies, the City Manager authorized emergency procurement to hire an outside contractor to assist with initial clean-up of the area surrounding the main break, investigation of the cause of the break, and completion of necessary repairs to the reclaimed water transmission main. Following this authorization, the City coordinated with Garney Companies, Inc., to complete repairs to the ruptured reclaimed water main.

19. Professional Services Agreement with Tristar Engineering and Management, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project Construction Management Services
Move City Council award Professional Services Agreement No. ST1909.451 to Tristar Engineering and Management, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project Construction Management Services, in an amount not to exceed $226,618.88.

BACKGROUND FROM COUNCIL MEMO:
The Environmental Protection Agency (EPA) has developed ambient air quality trends for particle pollution, also called particulate matter. PM10 describes inhalable particles with diameters that are generally ten micrometers and smaller. In 2007, Maricopa County approved a regional PM10 reduction plan imposed by the EPA. The City continues to perform alleyway rehabilitation to adhere to this regional plan.

The project scope of work includes pre-construction assistance, construction management contractor oversight, construction administration and inspection, utility coordination, materials testing quality assurance, Federal Highway Administration funding compliance, and project close-out. Services also include public outreach and coordination with affected residents and businesses. The contract completion time is 180 calendar days following Notice to Proceed. A related Construction Contract with Cactus Asphalt, a Division of Cactus Transport, Inc., for the Alley Rehabilitation PM10 Dust Emissions Project, is also scheduled for this City Council meeting.

20. Final Adoption of Ordinance No. 4953 Granting an Irrigation Easement to Salt River Project Agricultural Improvement and Power District
Move City Council approve final adoption of Ordinance No. 4953 granting an irrigation easement to Salt River Project Agricultural Improvement and Power District at the northwest corner of Arizona Avenue and Queen Creek Road, at no cost, to formalize an existing United States Government undefined irrigation easement at this location.

BACKGROUND FROM COUNCIL MEMO:
SRP, on behalf of the United States of America (USA), is requesting the City grant an irrigation easement over the west side of Arizona Avenue at the northwest corner of Arizona Avenue and Queen Creek Road. The USA has an existing easement in this area that was granted on August 29, 1923, by Quit Claim Deed. However, the width of the easement was not defined at the time. SRP has requested the City grant an irrigation easement to formalize the size of the previously granted easement. The easement will be granted to SRP at no cost. The new easement will be twenty feet wide and include a total area of approximately 12,225 square feet. Staff has reviewed and approved the easement and legal description for the requested easement. This Ordinance was introduced and tentatively adopted on January 28, 2020.

21. Final Adoption of Ordinance No. 4956 Granting Three (3) Irrigation Easements to Roosevelt Water Conservation District

Move City Council approve final adoption of Ordinance No. 4956 granting three (3) irrigation easements to the Roosevelt Water Conservation District (RWCD) within portions of Chandler Heights Road on either side of the Cooper Road intersection, at no cost, to accommodate the Cooper Road Improvement Project, from Alamosa Drive to Riggs Road.

BACKGROUND FROM COUNCIL MEMO:
To accommodate the construction of the City's Cooper Road Improvement Project from Alamosa Drive to Riggs Road, the City must grant three (3) irrigation easements to the Roosevelt Water Conservation District so that RWCD facilities can cross Chandler Heights Road at three (3) locations on either side of Cooper Road. Granting the easements to RWCD would be at no cost as they are required by a City of Chandler project. Staff has reviewed and approved the easement and legal description for the requested easement. This Ordinance was introduced and tentatively adopted on January 28, 2021.

22. Final Adoption of Ordinance No. 4948 Adopting Updated Versions of Public Works Design and Construction Standards

Move City Council approve final adoption of Ordinance No. 4948 adopting updated versions of previously adopted Public Works design and construction standards and amending Chapter 43, Section 43-5, Subsections 43-4.5.A, 43-4.5.B, 43-4.5.C, 43-4.5.D, 43-4.5.E, 43-4.5.G, and 43-4.5.I of the Code of the City of Chandler, relating to the adoption of these updated design and construction standards.

BACKGROUND FROM COUNCIL MEMO:
The City maintains and publishes Engineering Standard Details and Specifications, and Technical Design Manuals (TDM), which have been created to guide developers and City staff on the design and construction of the City's infrastructure. These documents are adopted by the City Council. In addition to various general revisions, this update includes revised City fiber optic communication cable and conduit standards, revisions to the Traffic Barricade Manual for new on-line application submittal process, and continued updates for Americans with Disabilities Act compliance.

The Engineering Design Standards Committee, with representation from multiple City departments, reviews proposed changes to the design standards and makes recommendations for annual updates. This process also involves reviewing the Maricopa Association of Governments (MAG) Specifications and Standards and their annually-proposed revisions to determine if City standards could be removed in favor of MAG standards. This Ordinance would amend the following design standards:

January 2020 Standard Details and Specifications Manual
January 2020 Technical Design Manual No. 1 & 2, Water & Wastewater System Design
January 2020 Technical Design Manual No. 3, Drainage Policies and Standards
January 2020 Technical Design Manual No. 4, Street Access and Design Control
January 2020 Technical Design Manual No. 5, Traffic Signal Design
January 2016 Technical Design Manual No. 7, Traffic Barricade Design
Adopt the 2021 revisions to the MAG Uniform Standard Specifications and Details with certain modifications

The revisions were provided to members of the development industry, including the Home Builders Association of Central Arizona (HBACA), the Arizona Multihousing Association (AMA), utility providers,

and engineering design consultants. Comments received were incorporated into these revisions, where appropriate. The complete set of current and revised Standard Details and Specifications is available for review on the City Unified Development Manual (UDM) website and on file with the City Clerk. A detailed summary of the changes is also attached. This Ordinance was introduced and tentatively adopted on January 28, 2021.

INFORMATIONAL

23. Study Session Minutes of the January 6, 2021, Planning and Zoning Commission Meeting

24. Regular Meeting Minutes of the January 6, 2021, Planning and Zoning Commission Meeting

UNSCHEDULED PUBLIC APPEARANCES

JOSEPH YANG, 4909 W. Joshua Blvd, Chandler, AZ, 85225, the president and founder of the Teen Unity Board which is a local non-profit that focuses on teen leadership and volunteering. Mr. Yang invited Council to the Chandler Teen Forum on March 6 at the San Marcos Town Plaza. Mr. Yang said there would be five panelists and would discuss a variety of topics. Mr. Yang said there have been many special guests invited to attend as well.

CURRENT EVENTS

1. Mayor's Announcements

MAYOR HARTKE wished everyone a Happy Lunar New Year.

MAYOR HARTKE invited everyone to attend the State of the City Address virtually on February 18.

MAYOR HARTKE announced the City Manager Marsha Reed would be retiring and Assistant City Manager Joshua Wright would be the Acting City Manager. Mayor Hartke said Mr. Wright was the Town Manager of Wickenburg and served as an Assistant City Manager in Marana.

2. Council's Announcements

COUNCILMEMBER HARRIS said the City Hall was lit red for Black History Month and thanked those who attended the lighting ceremony.

COUNCILMEMBER HARRIS hosted a Black Business Roundtable to talk about the needs and challenges during the pandemic and looked forward to meeting with business owners throughout the year.

COUNCILMEMBER HARRIS invited residents to West Alley BBQ for the closing of Black History Month on the last Sunday of February.

VICE MAYOR STEWART said the pandemic has been challenging and would be on Facebook Live to discuss mental wellness and discuss the challenges the kids are facing and resources available.

COUNCILMEMBER ELLIS said there would be volunteers to assist residents with their taxes through the Volunteer Income Tax Assistance Program. Councilmember Ellis said the service would last through April 13.

3. City Manager's Announcements

None.

ADJOURNMENT: The meeting was adjourned at 6:23 p.m.

ATTEST: _____ _____
City Clerk Mayor

Approval Date of Minutes: February 25, 2021

CERTIFICATION

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Regular Meeting of the City Council of Chandler, Arizona, held on the 11th day of February, 2021. I further certify that the meeting was duly called and held and that a quorum was present.

DATED this _____ day of February, 2021.

_____
City Clerk

CHANDLER arizona
Community of Innovation

City Council Memorandum **Community Services** **Memo No.** CP21-070

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
Andy Bass, Community Services Director
Andrew Goh, Capital Projects Manager

From: Hafiz Noor, Engineering Project Manager

Subject: Professional Services Agreement No. PR2102.201 with Gavan & Barker, Inc., for the Snedigar Sportsplex West Restroom Replacement project Design Services.

Proposed Motion:

Move City Council award Professional Services Agreement No. PR2102.201 to Gavan & Barker, Inc., for the Snedigar Sportsplex West Restroom Replacement project Design Services, in an amount not to exceed $36,690.07.

Background/Discussion:

Snedigar Sportsplex is a 91-acre recreation facility located at 4500 S. Basha Road, in the square mile bordered by Alma School Road, Arizona Avenue, Ocotillo Road and Chandler Heights Road. The original sports complex was constructed on 30 acres in 1991 and has since been expanded with new amenities added to keep pace with the needs for recreational sport fields and facilities. Key park amenities include baseball, soccer and softball fields, bike park, dog park, open turf area, playgrounds, shade ramadas, restroom buildings and shade structures. A single pair of restrooms in the ballfield area of the Sportsplex is not adequate for youth league teams, however, and there is a need for additional restrooms to meet user demand.

The existing two restrooms, located in a single building measuring approximately 22 feet by 27 feet in the ballfield complex, will be removed and new restrooms constructed at the same location, along with associated utility connections and sidewalk reconstruction to ensure accessibility in the general vicinity of the new restroom building. The new restrooms include 8 individual unisex stalls and 2 individual unisex accessible stalls. Each stall will have a toilet, sink, and hand dryer. The building will also include a maintenance area and exterior drinking fountains. This project also includes new lighted ramadas at the existing storage/overlook building as well as soil stabilizing of areas adjacent to the main walkway through the ballfields.

The project scope of work consists of architectural design services, civil engineering, electrical engineering, data collection, site plans, demolition plans, and ramada plan, as well as restroom plans, technical specifications, estimates, construction documents, permitting, development of construction documents and bidding assistance. The contract completion time is 225 calendar days following Notice to Proceed.

Evaluation:

The City's selection process was conducted in accordance with City policy and procedure and State law. Staff recommends approval of this agreement with Gavan & Barker, Inc., based on qualifications, relevant firm experience, team experience, project understanding, and project approach.

Fiscal Impact

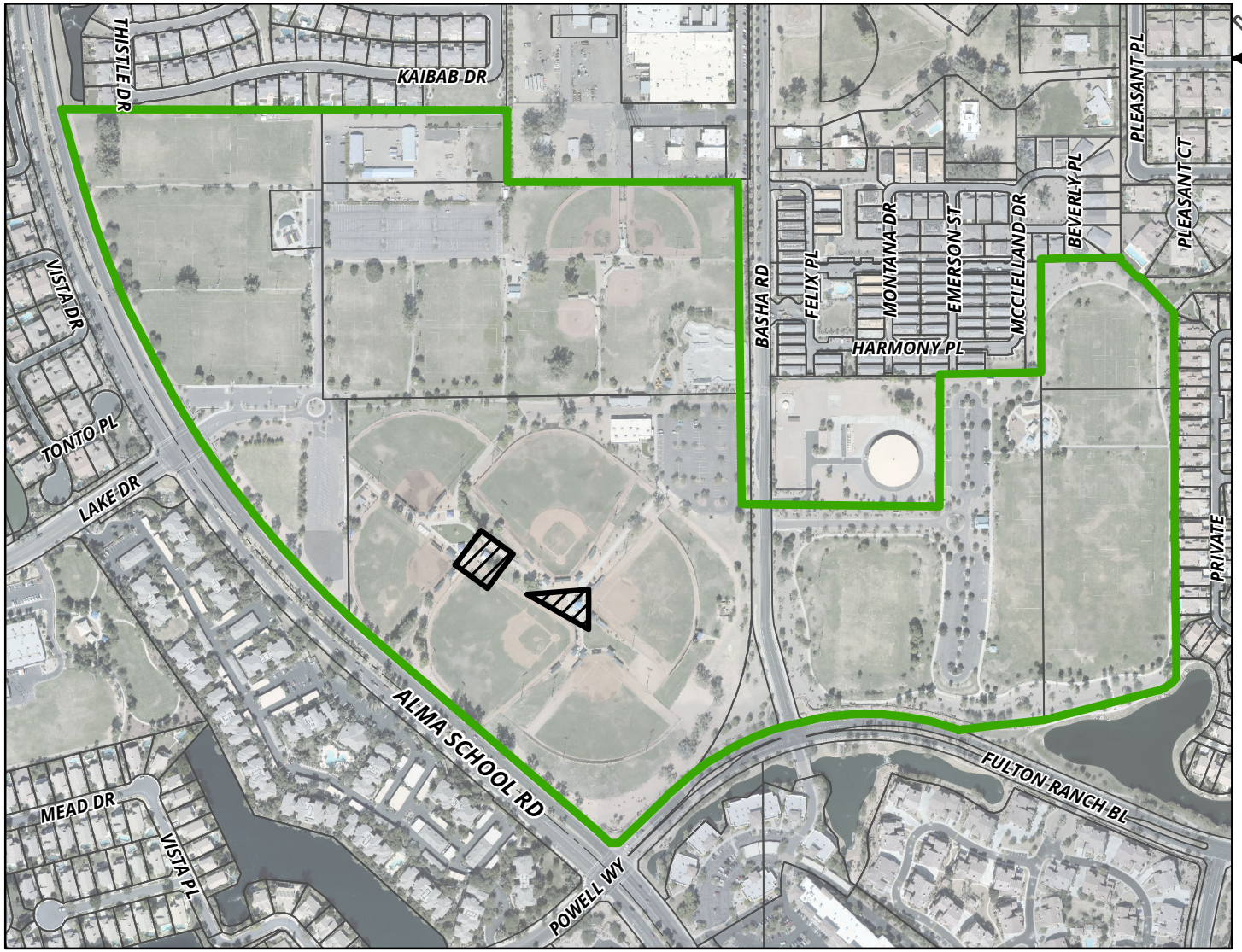
Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
401.4580.6611.0.6PR397	General Government Capital Project	Snedigar Sportsplex	$36,690.07	Y

Attachments

Location Map

PR2102.201 Signed Contract

SNEDIGAR SPORTSPLEX
WEST RESTROOM REPLACEMENT
PROJECT NO. PR2102.201



MEMO NO. CP21-070

PROJECT SITE

SNEDIGAR SPORTSPLEX

NTS

ChanGIS

F:\ENGINEER\GENSERV_ArcMap_Shared\Map Requests\Capital Projects\CP21-070 SNEDIGAR SPORTSPLEX WEST RESTROOM REPLACEMENT\CP21-070.mxd 1/5/2021 MARICELAH

PROFESSIONAL SERVICES AGREEMENT
Design Services
SNEDIGAR SPORTSPLEX WEST RESTROOM REPLACEMENT

Project No. PR2102.201

Council Date: February 25, 2021 Item No.

THIS AGREEMENT ("Agreement") is made and entered into on the _____ day of_____, 2021 ("Effective Date"), by and between City of Chandler, an Arizona municipal corporation, ("City"), and **Gavan & Barker, Inc.**, an Arizona corporation, ("Consultant") (City and Consultant may individually be referred to as "Party" and collectively referred to as "Parties").

RECITALS

A. City proposes to engage Consultant to provide Select Agreement Type for **SNEDIGAR SPORTSPLEX WEST RESTROOM REPLACEMENT** project as more fully described in **Exhibit "A"**, which is attached to and made a part of this Agreement by this reference.

B. Consultant is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.

C. City desires to contract with Consultant to provide these services under the terms and conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Agreement, City and Consultant agree as follows:

SECTION I--CONSULTANT'S SERVICES

Consultant must perform the services described in **Exhibit "A"** to City's satisfaction within the terms and conditions of this Agreement and within the care and skill that a person who provides similar services in Chandler, Arizona exercises under similar conditions. All work or services furnished by Consultant under this Agreement must be performed in a skilled and workmanlike manner. All fixtures, furnishings, and equipment furnished by Consultant as part of the work or services under this Agreement must be new, or the latest model, and of the most suitable grade and quality for the intended purpose of the work or service.

SECTION II--PERIOD OF SERVICE

Consultant must perform the services described in **Exhibit "A"** for the term of this Agreement. Unless amended in writing by the Parties, the Agreement term expires **225** calendar days after the Notice to Proceed (NTP) Date.

SECTION III--PAYMENT OF COMPENSATION AND FEES

Unless amended in writing by the Parties, Consultant's compensation and fees as more fully described in **Exhibit "B"** for performance of the services approved and accepted by City under this Agreement must not exceed **$36,690.07** for the full term of the Agreement. Consultant may not increase any compensation or fees under this Agreement without the City's prior written consent. Consultant must submit monthly requests for payment of services approved and accepted during the previous billing period and must include, as applicable, detailed invoices and receipts, a narrative description of the tasks accomplished during the billing period, a list of any deliverables submitted, and any subconsultant's or supplier's actual requests for payment plus similar narrative and listing of their work. Consultant must submit an Application and Certification for Payment Sheet with the monthly request for payment to: CapitalProjects.Payables@chandleraz.gov. Payment for those services negotiated as a lump sum will be made in accordance with the percentage of the work completed during the preceding billing period. Services negotiated as a not-to-exceed fee will be paid in accordance with the work effort expended on the service during the preceding month. All requests for payment must be submitted to City for review and approval. City will make payment for approved and accepted services within 30 calendar days of City's receipt of the request for payment. Consultant bears all responsibility and liability for any and all tax obligations that result from Consultant's performance under this Agreement.

SECTION IV--CITY'S OBLIGATIONS

As part of Consultant's services under this Agreement, City will provide furnished items, services, or obligations as detailed in **Exhibit "D"**.

SECTION V--GENERAL CONDITIONS

5.1 Notices. Unless otherwise provided herein, demands under this Agreement must be in writing and will be deemed to have been duly given and received either (a) on the date of service if personally served on the party to whom notice is to be given, or (b) on the third day after the date of the postmark of deposit by first class United States mail, registered or certified, postage prepaid and properly addressed as follows:

To City:	City of Chandler Public Works & Utilities Department Attn: City Engineer P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008

With a Copy to:	Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
To Consultant:	Mr. John Barker Gavan & Barker, Inc. 3030 N. Central Ave., Ste. 700 Phoenix, AZ 85012

5.2 Records/Audit. Records of Consultant's direct personnel payroll, reimbursable expenses pertaining to this Agreement and records of accounts between City and Consultant must be kept on the basis of generally accepted accounting principles and must be made available to City and its auditors for up to three years following City's final acceptance of the services under this Agreement. City, its authorized representative, or any federal agency, reserves the right to audit Consultant's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate this Agreement and any amendments. City reserves the right to decrease the total amount of Agreement price or payments made under this Agreement or request reimbursement from Consultant following final contract payment on this Agreement if, upon audit of Consultant's records, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data. Consultant will include a similar provision in all of its contracts with subconsultants who provide services under the Agreement to ensure that City, its authorized representative, or the appropriate federal agency, has access to the subconsultants' records to verify the accuracy of all cost and pricing data. City reserves the right to decrease Contract price or payments made on this Agreement or request reimbursement from Consultant following final payment on this Agreement if the above provision is not included in subconsultant agreements, and one or more subconsultants refuse to allow City to audit their records to verify the accuracy and appropriateness of all cost and pricing data. If, following an audit of this Agreement, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Agreement billings, Consultant will be liable for reimbursement of the reasonable, actual cost of the audit.

5.3 Alteration in Character of Work. Whenever an alteration in the character of work results in a substantial change in this Agreement, thereby materially increasing or decreasing the scope of services, cost of performance, or Project schedule, the work will be performed as directed by City. However, before any modified work is started, a written amendment must be approved and executed by City and Consultant. Such amendment must not be effective until approved by City. Additions to, modifications, or deletions from this Agreement as provided herein may be made, and the compensation to be paid to Consultant may accordingly be adjusted by mutual agreement of the Parties. It is distinctly understood and agreed that no claim for extra services or materials furnished by Consultant will be allowed by City except as provided herein, nor must Consultant do any work or furnish any materials not covered by this Agreement unless such work is first authorized in writing. Any such work or materials furnished by Consultant without prior written authorization will be at Consultant's own risk, cost, and expense, and Consultant hereby agrees that without

written authorization Consultant will make no claim for compensation for such work or materials furnished.

5.4 Termination. City and Consultant hereby agree to the full performance of the covenants contained herein, except that City reserves the right, at its discretion and without cause, to terminate or abandon any service provided for in this Agreement, or abandon any portion of the Project for which services have been performed by Consultant. In the event City abandons or suspends the services, or any part of the services as provided in this Agreement, City will notify Consultant in writing and immediately after receiving such notice, Consultant must discontinue advancing the work specified under this Agreement. Upon such termination, abandonment, or suspension, Consultant must deliver to City all drawings, plans, specifications, special provisions, estimates and other work entirely or partially completed, together with all unused materials supplied by City. Consultant must appraise the work Consultant has completed and submit Consultant's appraisal to City for evaluation. City may inspect Consultant's work to appraise the work completed. Consultant will receive compensation in full for services performed to the date of such termination. The fee will be paid in accordance with Section Ill of this Agreement, and as mutually agreed upon by Consultant and City. If there is no mutual agreement on payment, the final determination will be made in accordance with the "Disputes" provision in this Agreement. However, in no event may the fee exceed the fee set forth in Section Ill of this Agreement nor as amended in accordance with Section "Alteration in Character of Work." City will make the final payment within 60 days after Consultant has delivered the last of the partially completed items and the Parties agree on the final fee. If City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

5.5 Indemnification. To the extent permitted by law, the Consultant ("lndemnitor") must indemnify, save and hold harmless City and its officers, officials, agents and employees ("lndemnitee") from any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees and costs of claim processing, investigation and litigation) ("Claims") caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Consultant or any of its owners, officers, directors, agents, employees, or subconsultants in connection with this Agreement. This indemnity includes any claim or amount arising out of or recovered under workers' compensation law or on account of the failure of Consultant to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Consultant must indemnify lndemnitee from and against any and all Claims, except those arising solely from lndemnitee's own negligent or willful acts or omissions. Consultant is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Consultant agrees to waive all rights of subrogation against lndemnitee for losses arising from or related to this Agreement. The obligations of Consultant under this provision survive the termination or expiration of this Agreement.

5.6 Insurance Requirements. Consultant must procure insurance under the terms and conditions and for the amounts of coverage set forth in **Exhibit "C"** against claims that may arise from or relate to performance of the work under this Agreement by Consultant and its

agents, representatives, employees, and subconsultants. Consultant and any subconsultant must maintain this insurance until all of their obligations have been discharged, including any warranty periods under this Agreement. These insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. City in no way warrants that the minimum limits stated in **Exhibit "C"** are sufficient to protect Consultant from liabilities that might arise out of the performance of the work under this Agreement by Consultant, Consultant's agents, representatives, employees, or subconsultants. Consultant is free to purchase such additional insurance as may be determined necessary.

5.7 Cooperation and Further Documentation. Consultant agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of this Agreement.

5.8 Successors and Assigns. City and Consultant each bind itself, its partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Agreement. Neither City nor Consultant may assign, sublet, or transfer its interest in this Agreement without the written consent of the other party. In no event may any contractual relation be created between any third party and City.

5.9 Disputes. In any dispute arising out of an interpretation of this Agreement or the duties required not disposed of by agreement between Consultant and City, the final determination at the administrative level will be made by City Engineer.

5.10 Completeness and Accuracy of Consultant's Work. Consultant must be responsible for the completeness and accuracy of Consultant's services, data, and other work prepared or compiled under Consultant's obligation under this Agreement and must correct, at Consultant's expense, all willful or negligent errors, omissions, or acts that may be discovered. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications must be accomplished by Consultant. The cost of the design necessary to correct those errors attributable to Consultant and any damage incurred by City as a result of additional construction costs caused by such engineering or architectural errors will be chargeable to Consultant and will not be considered a cost of the Work. The fact that City has accepted or approved Consultant's work will in no way relieve Consultant of any of Consultant's responsibilities.

5.11 Reporting. Written monthly reports, along with updated work schedules, will be made by Consultant in the format prescribed by City. These reports will be delivered to City per schedule. When requested by City, Consultant will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

5.12 Withholding Payment. City reserves the right to withhold funds from Consultant's payments up to the amount equal to the claims City may have against Consultant until such time that a settlement on those claims has been reached.

5.13 City's Right of Cancellation. The Parties acknowledge that this Agreement is subject to cancellation by City under the provisions of Section 38-511, Arizona Revised Statutes (A.R.S.).

5.14 Independent Consultant. For this Agreement Consultant constitutes an independent contractor. Any provisions in this Agreement that may appear to give City the right to direct Consultant as to the details of accomplishing the work or to exercise a measure of control over the work means that Consultant must follow the wishes of City as to the results of the work only. These results must comply with all applicable laws and ordinances.

5.15 Project Staffing. Prior to the start of any work under this Agreement, Consultant must submit to City detailed resumes of key personnel that will be involved in performing services prescribed in the Agreement. City hereby acknowledges its acceptance of such personnel to perform services under this Agreement. At any time hereafter that Consultant desires to change key personnel while performing under the Agreement, Consultant must submit the qualifications of the new personnel to City for prior approval. Key personnel include, but are not limited to, principals-in-charge, project manager, and project Consultant. Consultant will maintain an adequate and competent staff of qualified persons, as may be determined by City, throughout the performance of this Agreement to ensure acceptable and timely completion of the Scope of Services. If City objects, with reasonable cause, to any of Consultant's staff, Consultant must take prompt corrective action acceptable to City and, if required, remove such personnel from the Project and replace with new personnel agreed to by City.

5.16 Consultants or Subconsultants. Prior to beginning the work, Consultant must furnish City for approval the names of consultants or subconsultants to be used under this Agreement. Any subsequent changes are subject to City's written prior approval.

5.17 Force Majeure. If either party is delayed or prevented from the performance of any act required under this Agreement by reason of acts of God or other cause beyond the control and without fault of the Party (financial inability excepted), performance of that act may be excused, but only for the period of the delay, if the Party provides written notice to the other Party within ten days of such act. The time for performance of the act may be extended for a period equivalent to the period of delay from the date written notice is received by the other Party.

5.18 Compliance with Federal Laws. Consultant understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989 to it. Consultant agrees to comply with these laws in performing this Agreement and to permit City to verify such compliance.

5.19 No Israel Boycott. By entering into this Agreement, Consultant certifies that Consultant is not currently engaged in, and agrees for the duration of the Agreement, not to engage in a boycott of Israel as defined by state statute.

5.20 Legal Worker Requirements. A.R.S. § 41-4401 prohibits City from awarding a contract to any consultant who fails, or whose subconsultants fail, to comply with A.R.S. § 23-214(A). Therefore, Consultant agrees Consultant and each subconsultant it uses warrants their

compliance with all federal immigration laws and regulations that relate to their employees and their compliance with § 23-214, subsection A. A breach of this warranty will be deemed a material breach of the Agreement and may be subject to penalties up to and including termination of the Agreement. City retains the legal right to inspect the papers of any Consultant's or subconsultant's employee who provides services under this Agreement to ensure that Consultant and subconsultants comply with the warranty under this provision.

5.21 Lawful Presence Requirement. A.R.S. §§ 1-501 and 1-502 prohibit City from awarding a contract to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

5.22 Covenant Against Contingent Fees. Consultant warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the Chandler City Council, or any City employee has any interest, financially, or otherwise, in Consultant's firm. For breach or violation of this warrant, City may annul this Agreement without liability or, at its discretion, to deduct from the Agreement price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

5.23 Non-Waiver Provision. The failure of either Party to enforce any of the provisions of this Agreement or to require performance of the other Party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor must it affect the validity of this Agreement or any part thereof, or the right of either Party to thereafter enforce each and every provision.

5.24 Disclosure of Information Adverse to City's Interests. To evaluate and avoid potential conflicts of interest, Consultant must provide written notice to City, as set forth in this Section, of any work or services performed by Consultant for third parties that may involve or be associated with any real property or personal property owned or leased by City. Such notice must be given 7 business days prior to commencement of the services by Consultant for a third party, or 7 business days prior to an adverse action as defined below. Written notice and disclosure must be sent in accordance with Section 6.7 above. An adverse action under this Agreement includes, but is not limited to: (a) using data as defined in the Agreement acquired in connection with this Agreement to assist a third party in pursuing administrative or judicial action against City; or (b) testifying or providing evidence on behalf of any person in connection with an administrative or judicial action against City; or (c) using data to produce income for Consultant or its employees independently of performing the services under this Agreement, without the prior written consent of City. Consultant represents that except for those persons, entities, and projects identified to City, the services performed by Consultant under this Agreement are not expected to create an interest with any person, entity, or third party project that is or may be adverse to City's interests. Consultant's failure to provide a written notice and disclosure of the information

as set forth in this Section constitute a material breach of this Agreement.

5.25 Data Confidentiality and Data Security. As used in the Agreement, "data" means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to Consultant or its subconsultants in the performance of this Agreement. The Parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to Consultant or its subconsultants in connection with Consultant's or its subconsultant's performance of this Agreement is confidential and proprietary information belonging to City. Except as specifically provided in this Agreement, Consultant or its subconsultants must not divulge data to any third party without City's prior written consent. Consultant or its subconsultants must not use the data for any purposes except to perform the services required under this Agreement. These prohibitions do not apply to the following data provided to Consultant or its subconsultants have first given the required notice to City: (a) data which was known to Consultant or its subconsultants prior to its performance under this Consultant or its subconsultants by a third party, who to the best of Consultant's or its subconsultants' knowledge and belief, had the legal right to make such disclosure and Consultant or its subconsultants are not otherwise required to hold such data in confidence; or (c) data which is required to be disclosed by virtue of law, regulation, or court order, to which Consultant or its subconsultants are subject. In the event Consultant or its subconsultants are required or requested to disclose data to a third party, or any other information to which Consultant or its subconsultants became privy as a result of any other contract with City, Consultant must first notify City as set forth in this Section of the request or demand for the data. Consultant or its subconsultants must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure. All data must continue to be subject to the confidentiality agreements of this Agreement. Consultant or its subconsultants assume all liability to maintain the confidentiality of the data in its possession and agrees to compensate City if any of the provisions of this Section are violated by Consultant, its employees, agents or subconsultants. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. Consultant agrees that the requirements of this Section must be incorporated into all subagreements entered into by Consultant. A violation of this Section may result in immediate termination of this Agreement without notice.

5.26 Personal Identifying Information-Data Security. Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times by Consultant or its subconsultants. At a minimum, Consultant or its subconsultants must encrypt or password-protect electronic files. This includes data saved to laptop computers, computerized devices, or removable storage devices. When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed. In the event that

data collected or obtained by Consultant or its subconsultants in connection with this Agreement is believed to have been compromised, Consultant or its subconsultants must immediately notify City contact. Consultant agrees to reimburse City for any costs incurred by City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach. Consultant agrees that the requirements of this Section must be incorporated into all subcontracts entered into by Consultant. It is further agreed that a violation of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Agreement without notice. The obligations of Consultant or its subconsultants under this Section must survive the termination of this Agreement.

5.27 Jurisdiction and Venue. This Agreement is made under, and must be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any action to enforce any provision of this Agreement or to obtain any remedy with respect hereto must be brought in the courts located in Maricopa County, Arizona, and for this purpose, each Party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

5.28 Survival. All warranties, representations, and indemnifications by Consultant must survive the completion or termination of this Agreement.

5.29 Modification. Except as expressly provided herein to the contrary, no supplement, modification, or amendment of any term of this Agreement will be deemed binding or effective unless in writing and signed by the Parties.

5.30 Severability. If any provision of this Agreement or the application to any person or circumstance may be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application will not be affected and will be enforceable to the fullest extent permitted by law.

5.31 Integration. This Agreement contains the full agreement of the Parties. Any prior or contemporaneous written or oral agreement between the Parties regarding the subject matter is merged and superseded.

5.32 Time is of the Essence. Time of each of the terms, covenants, and conditions of this Agreement is hereby expressly made of the essence.

5.33 Date of Performance. If the date of performance of any obligation or the last day of any time period provided for should fall on a Saturday, Sunday, or holiday for City, the obligation will be due and owing, and the time period will expire, on the first day after which is not a Saturday, Sunday or legal City holiday. Except as may otherwise be set forth in this Agreement, any performance provided for herein will be timely made if completed no later than 5:00 p.m. (Chandler time) on the day of performance.

5.34 Third Party Beneficiary. Nothing under this Agreement will be construed to give any rights or benefits in the Agreement to anyone other than City and Consultant, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and

exclusive benefit of City and Consultant and not for the benefit of any other party.

5.35 Conflict in Language. All work performed must conform to all applicable City of Chandler codes, ordinances, and requirements as outlined in this Agreement. If there is a conflict in interpretation between provisions in this Agreement and those in **Exhibit "A"**, the provisions in this Agreement prevail.

5.36 Document/Information Release. Documents and materials released to Consultant, which are identified by City as sensitive and confidential, are City's property. The document/material must be issued by and returned to City upon completion of the services under this Agreement. Consultant secondary distribution, disclosure, copying, or duplication in any manner is prohibited without City's prior written approval. The document/material must be kept secure at all times. This directive applies to all City documents, whether in photographic, printed, or electronic data format.

5.37 Exhibits. The following exhibits are made a part of this Agreement and are incorporated by reference:

Exhibit A - Scope of Services / Schedule
Exhibit B - Compensation and Fees
Exhibit C - Insurance Requirements
Exhibit D - Special Conditions
Exhibit E – Federal Requirements (if applicable)

5.38 Special Conditions. As part of the services Consultant provides under this Agreement, Consultant agrees to comply with and fully perform the special terms and conditions set forth in **Exhibit "D"**, which is attached to and made a part of this Agreement.

5.39 Non-Discrimination and Anti-Harassment Laws. Consultant must comply with all applicable City, state, and federal non-discrimination and anti-harassment laws, rules, and regulations.

5.40 Licenses and Permits. Beginning with the Effective Date and for the full term of this Agreement, Consultant must maintain all applicable City, state, and federal licenses and permits required to fully perform Consultant's services under this Agreement.

5.41 Warranties. Consultant must furnish a one-year warranty on all work and services performed under this Agreement. Consultant must furnish, or cause to be furnished, a two-year warranty on all fixtures, furnishings, and equipment furnished by Consultant, subconsultants or suppliers under this Agreement. Any defects in design, workmanship, or materials that do not comply with this Agreement must be corrected by Consultant (including, but not limited to, all parts and labor) at Consultant's sole cost and expense. All written warranties and redlines for as-built conditions must be delivered to City on or before City's final acceptance of Consultant's services under this Agreement.

5.42 Cooperative Purchasing Agreement (S.A.V.E. – Strategic Alliance for Volume Expenditures). In addition to City of Chandler and with the approval of Consultant, this

Agreement may be extended for use by other municipalities, school districts, and government agencies of the State. Any such usage by other entities must be in accordance with the ordinance, charter, or procurement rules and regulations of the respective political entity.

5.43 Budget Approval into Next Fiscal Year. This Agreement will commence on the Effective Date and continue in full force and effect until it is terminated or expires in accordance with the provisions of this Agreement. The Parties recognize that the continuation of this Agreement after the close of the City's fiscal year, which ends on June 30 of each year, is subject to the City Council's approval of a budget that includes an appropriation for this item as an expenditure. The City does not represent that this budget item will be actually adopted. This determination is solely made by the City Council.

SIGNATURE PAGE TO FOLLOW

This Agreement will be in full force and effect only when it has been approved and executed by the duly authorized City officials.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

"CITY"
CITY OF CHANDLER

_____
MAYOR

Recommended By:

_____
Andrew Goh, P.E.
CIP City Engineer

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk Seal

"CONSULTANT"
Gavan & Barker, Inc.

_____ 1-9-21
Signature Date

JOHN BARKER
Print Name

VICE PRESIDENT
Title

jbarker@gavanbarker.com
Email

EXHIBIT "A"
SCOPE OF SERVICES/SCHEDULE

December 14, 2020

Mr. Hafiz Noor
Project Manager
Public Works & Utilities Department
City of Chandler
Mail Stop 407
PO Box 4008
Chandler, AZ 85244-4008

Re: Design Services Proposal
City of Chandler – Snedigar Sportsplex West Restroom Replacement
CoC Project No.: PR2102.201
Gavan & Barker No. 1921

Dear Hafiz:

We are pleased to submit our price proposal for the above referenced project. Attached is Attachment A-1 Scope of Services; A-2 Production Assignments; A-3 Production Schedule; Attachment B-1 Task Costs; and Attachment B-2 Task Hours.

Also enclosed are the cost proposals from our subconsultants: Gilliam Architecture and Wright Engineering. We anticipate a project schedule of 225 days total including Design, City Plan Review and Bidding Phase. Please see attached project schedule.

At our scope meeting it was requested to break our proposal out into 3 proposals for: Restroom, Stabilization, and Ramada. Because we have previously prepared work (have design files) for the stabilization area and plans for the ramada, the design costs for these two elements are fairly small, therefore separate proposals were not prepared. The cost for the stabilization element would be a $500 deduct, and the Ramada element would be a $1000 deduct from this proposal.

Again, thank you for this opportunity and please call me if you have any questions.

Sincerely,
Gavan & Barker, Inc.

John Barker, ASLA, PLA
Project Manager

Attachments

ATTACHMENT A-1

DETAILED DESCRIPTION OF THE PROJECT
AND
CONSULTANT SCOPE OF SERVICES

PROJECT TITLE: Snedigar Sportsplex West Restroom Replacement
PROJECT NO.: PR2102.201
Chandler, AZ.

PROJECT DESCRIPTION & SCOPE OF CONSTRUCTION:

Consultant will provide services for the design, permitting and development of construction documents, for a new restroom building at the Snedigar Sportsplex in Chandler, Arizona.

Snedigar Sportsplex is located at 4500 S. Basha Road, located in the square mile bordered by Alma School Rd., Arizona Ave., Ocotillo Rd. and Chandler Heights Rd. in Chandler, Arizona.

The existing restroom building in the ballfield complex will be removed and a new restroom will be constructed at the same location, along with associated utility connections, and sidewalk reconstruction to ensure accessibility compliance in the general vicinity of the new restroom building.

The project will also include new lighted ramadas at the existing storage/overlook building utilizing a design previously completed in the park's last phase of development.

The project will also include soil stabilizing of areas adjacent to the main walkway through the ballfields.

Consultant shall provide all design services for the Project including normal civil engineering, electrical engineering, and architectural services.

TASKS

1. Administrative

1.1. Project management: consultant coordination, monitor schedule, quality control
1.2. Progress meeting (2 meetings)
1.3. Comment resolution meeting (1 meeting)

2. Data Collection / Base Sheets

Base sheets for the new restroom and ramada areas will be prepared utilizing the existing survey and as-built information from previous projects. Utility data will be collected from the City and other utilities to add and or update the utilities in the project areas. Field measurements will be taken as necessary to verify locations of trees, irrigation, and previous project improvements that may affect this project.

3. **Schematic Design / Preliminary Submittal (30%) –** Consultant shall prepare a preliminary layout for the new restroom improvements in a conceptual form for City review. The 30% schematic plans shall consist of:

3.1. **Site Plan:** A site plan will be prepared to locate the new restroom and ramada in the park to meet City Plan Review requirements. New sidewalks will be placed around the perimeter of the new restroom and connect to existing sidewalks as necessary.

3.2. **Demolition Plan:** Demolition and removals shall consist of the existing restroom building; concrete slabs, and adjacent sidewalk, landscape and irrigation, and sidewalk removals for the new ramada footings.

3.3. **Ramada Plan:** The ramada previously designed with the ballfield sidewalk improvements and located at the existing storage building will be incorporated into the plans for this project. Ramada details and updated electrical plans for ramada lighting will be included in the plans. *(See Wright Engineering Scope of Work).*

3.4. **Restroom Plan:** The restroom building will utilize the restroom building design prepared for the Tumbleweed Park Multi-Use Fields project (PR1811.401), and will include 8 individual unisex stalls and 2 individual unisex accessible stalls. Each stall will have a toilet, sink, and hand dryer. The building will also include a maintenance chase and exterior drinking fountains. (*See attached Gilliam Architecture Scope of Work).*

4. Construction Documents (95%/100%) – A final submittal will be prepared which will include final plans, specifications, and cost estimate for submittal to City Plan Review. The final plans will include updating the specifications for the building based on any revisions made to the Tumbleweed Park restroom. Plan Review comments will be addressed, adjusting the plans, specifications, & cost estimate as necessary to obtain plan approvals. Tasks include:

4.1. **Final Site Plan**
4.2. **Final Site Demolitions Plan**
4.3. **Final Site Grading/ Construction Plan**
4.4. **Final Site Details**
4.5. **Final Restroom Architectural Plans**
4.6. **Final Technical Specifications**
4.7. **Final Cost Estimate**

5. Bidding Assistance

5.1. Pre-bid meeting.

5.2. Consider requests for substitutions and prepare and distribute addenda identifying approved substitutions to all prospective bidders.

5.3. Prepare responses to questions from prospective bidders and provide clarifications and interpretation of the Construction Documents and Specifications to all prospective bidders in the form of addenda.

SUBMITTALS

Preliminary Submittal – Schematic plans will be submitted to the City for review. The preliminary submittal will include electronic PDF files of the schematic plans and cost estimates.

Final Submittal – Upon City review of the preliminary submittal, a final submittal shall be made which will include any revisions requested by the City. The final submittal will be an electronic version in PDF format.

Plan Review Submittal – final plans will be uploaded for City Plan Review.

Allowances:

6. **Owner's Allowance - Additional Design Tasks & Meetings:** This allowance is to provide additional design services and project meetings in the event that the project budget allows for the design of additional features or improvements beyond items identified in this scope work.

7. **Reimbursables:** Printing & Deliveries

Assumptions:

1. New water, sewer, or electrical services will not be required for the new restroom. The new restroom and ramada will be connected to the existing services.
2. No drainage study will be required. It is assumed that City Plan Review will not require one since the new structures will have little impact on the existing drainage conditions.
3. No Utility Agency Coordination will be required.

ATTACHMENT A-2

PRODUCTION ASSIGNMENTS
Snedigar Sportsplex West Restroom Replacement
PROJECT NO.: PR2102.201

Prime Design Consultant: Gavan & Barker, Inc.

Principal LA / Project Manager: John Barker, PLA, ASLA
Principal/Senior Engineer: Mark Gavan, P.E., R.L.S
Project Engineer: Omer Karovic, P.E.
Landscape Designer: Joel Hormann
Engineering Designer: Alfred Abalos

Architectural Consultant: Gilliam Architecture

Architect: Randy Gilliam RA, NCARB

Electrical Engineering Consultant (Site Work): Wright Engineering, Inc.

Electrical Engineer: Cliff Tolman

ATTACHMENT A-3
PRODUCTION SCHEDULE
Snedigar Sportsplex West Restroom Replacement
PROJECT NO.: PR2102.201

Task ID	Description	WEEKS
	NTP	
1	Field Work / Base Sheets	
2	Schematic Design (30%) Submittal	
	City Review (2 Wks)	
3	Progress / Review Meeting	
4	Construction Documents 90%	
5	City Review (2 Wks)	
6	Progress / Review Meeting	
7	Pre-Final PS&E (95%) Submittal	
8	City Plan Review (8 Wks)	
9	Final PS&E Approvals / Permits	
10	Bid Advertising / Award	
11	Construction	

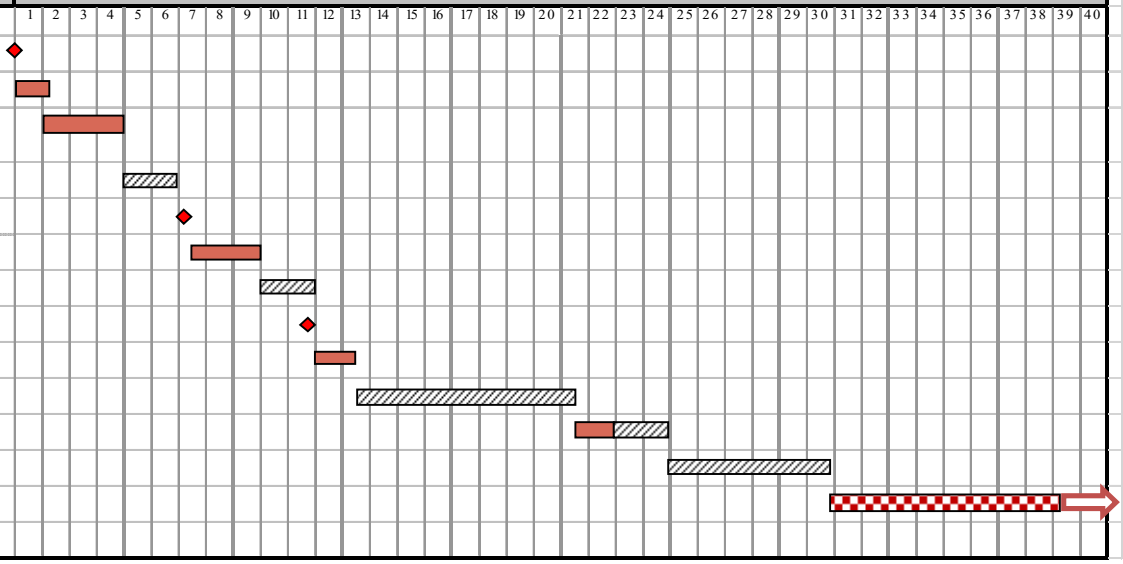


EXHIBIT "B"
COMPENSATION AND FEES

Exhibit B-1

Snedigar Sportsplex Restroom

PR2102.201

Design Services

December 14, 2020

Gavan & Barker Inc.
3030 N. Central Ave., Suite 700, Phoenix, Arizona 85012

Task No.	Task Description	Total Costs
1	Administrative	$ 1,664.50
2	Data Collection/Base Sheets	$ 1,579.04
3	Schematic Design / Prelim Submittal	$ 1,763.32
4	Construction Documents	$ 3,904.92
5	Bidding Assistance	$ 968.29
	Direct Costs:	
	Gilliam Architecture	$20,000.00
	Wright Engineering (Electrical)	$2,310.00
	Allowances:	
	Reimbursables	$500.00
	Owner's Allowance	$4,000.00
	Contract Total:	**$ 36,690.07**

Exhibit B-2
Snedigar Sportsplex Restroom
PR2102.201
Design Services
December 14, 2020

Gavan & Barker Inc.
3030 N. Central Ave., Suite 700, Phoenix, Arizona 85012

TASK DESCRIPTION	SUBTOTAL	Principal Civil Engr. $ 152.05	Project Manager $ 136.04	Project Engineer $ 105.11	Senior Designer $ 86.24	
1. Administrative	**1,664.50**	**2**	**10**	**0**	**0**	**12**
1.1 Project Management	848.26	2	4			6
1.2 Progress Meetings	544.16		4			4
1.3 Comment Resolution Meeting	272.08		2			2
2. Data Collection / Base Sheets	**1,579.04**	**0**	**4**	**0**	**12**	**16**
2.1 Data Collection / Base Sheets	1,579.04		4		12	16
3. Schematic Design / Prelim Submittal	**1,763.32**	**1**	**6**	**1**	**8**	**16**
3.1 Site Plan	874.20	1	2	1	4	8
3.2 Demolition Plan / Landscape Renovation	358.32		2		1	3
3.3 Ramada Plan	308.52		1		2	3
3.4 Restroom Plan	222.28		1		1	2
4. Construction Documents	**3,904.92**	**4**	**11**	**4**	**16**	**35**
4.1 Final Site Plan	586.11		1	1	4	6
4.2 Final Demolition Plan	222.28		1		1	2
4.3 Final Grading Plans	1,167.80	2	1	2	6	11
4.4 Final Site Details	327.39		1	1	1	3
4.5 Final Restroom Architectural Plans	222.28		1		1	2
4.6 Final Technical Specifications	696.21	1	4			5
4.7 Final Cost Estimate	682.85	1	2		3	6
5. Bidding Assistance	**968.29**	**1**	**6**	**0**	**0**	**7**
5.1 Pre-Bid Meeting	272.08		2			2
5.2 Requests for Substitutions	272.08		2			2
5.3 Respond to Bidder Questions	424.13	1	2			3
Total:	**9,880.07**					

Owner's Allowance	4,000.00
Reimbursables	500.00
Subconsultants	
Gilliam Architecture	$20,000.00
Wright Engineering (Electrical)	$2,310.00
Grand Total:	**$36,690.07**

GILLIAMARCHITECTURE, LLC
ARCHITECTURE + PLANNING + INTERIORS + ILLUSTRATION
40 W. Baseline Rd. #115 | TEMPE | ARIZONA 85283

December 16, 2019 ***revised 12/11/2020***

Attn: Mr. John Barker, ASLA, PLA
Gavan & Barker, Inc.
3030 N. Central Ave.
Suite 1530
Phoenix, AZ 85012

Re: Proposal for Architectural and Engineering Services
New Restroom at Snedigar Sportplex

John: We are pleased to submit this ***revised*** proposal for A/E services for your review and consideration. This proposal is based on the information you provided in our discussions and email correspondence. Scope of services includes Schematic Design, Design Development, Construction Documents, and Permitting. Construction Administration will be provided under a separate agreement.

A. PROJECT SCOPE AND CRITERIA

1. This project includes architectural, structural, mechanical plumbing, and electrical engineering services as required for the addition of the new restroom building at the Snedigar Sportplex Park in Chandler, AZ. It is the City's request to use the same layout, and set of plans as we recently developed for the Tumbleweed Park Restroom, with minimal changes. As part of this scope we will update the design as needed to reflect the current building code requirements. If requested, exterior and interior colors may be changed to reflect the City's design requirements for this project site.

2. Civil and Landscape design and drawings will be provided by Gavan & Barker, the client. We will coordinate with Gavan & Barker as required during the design process. Cad files for the proposed site layout will be provided prior to the start of the design work.

3. Structural engineering is included for the restroom building. Structural engineer will provide drawings and calculations, and adapt drawings to reflect geotechnical recommendations for the soils condition at this site and prepare drawings and calculations for the City's plan review process.

4. Plumbing engineering is included for the restroom building, and include both water supply and waste water plans to within 5' outside of the building. It is assumed that adequate capacity is available to the project site. Plumbing engineer will evaluate and revise, if needed, locations of the plumbing lines that will connect to the existing site main lines.

5. Same as Tumbleweed Park design; it is assumed that the new building will be open to the exterior and that mechanical HVAC will not be required. If requested, or required this would be provided as an additional service.

6. Electrical engineering and Lighting design is included for the restroom building. The electrical engineer will provide drawings and coordinate connections and feeds to the site electrical services. Electrical power and lighting designs will be same as provided for the Tumbleweed Park facility. It is assumed that adequate power is available to the site.

7. Special Fire Protection and fire alarm systems, if required will be provided by the general contractor or by others as a deferred submittal, therefore excluded from this scope of services.

8. As requested, upon completion of the Construction Documents, we will provide signed and sealed PDF files for submittal to the City of Chandler for permit review and approval. If required, additional state or federal or other governmental agencies would be considered an additional service, or will be provided by others.

9. As requested, included is a separate fee breakdown for the Geotechnical / Soils report which will be required for the structural engineering design. The study will be based on one (1) test boring to a depth of 15-20 feet below existing grade which is expected to be. GA's geotechnical engineer to provide a report to illustrate existing soil conditions as required for the structural engineering design and as required for submittal to the City.

10. As per our earlier discussion, it is our understanding that the Owner / City representative is interested in researching "smart" technologies and infection control products for this new facility. The design team will work with the Owner and project team to come up options during the initial design process.

B. BASIC SERVICES TO BE PROVIDED

I. **Schematic Phase:**

a. Reuse Tumbleweed Park Restroom plans, and coordinate and exterior color changes as requested by Client / City of Chandler. The proposed layout will be based on a similar design as provided in for the Tumbleweed Park; therefore no further Schematic Design will be required.
b. If requested, includes one (1) meeting with the client / owner during this phase.
c. Included is a separate fee breakdown for the Geotechnical Report.
d. Review and research "smart" technologies for infection control or Biophilic design.

II. **Design Development & Construction Drawings Phases:**

a. Prepare and coordinate final set of Construction Drawings and specifications for construction and for permit review.
b. Gilliam Architecture's engineering consultants to finalize Structural, Plumbing Engineering, and Electrical Engineering, documents for construction and permit review.
c. Provide Energy Compliance Calculations as required by code.
d. Includes one (1) meeting with the client / owner during this phase, and if requested one meeting with mechanical & electrical engineers.

III. Bidding & Permitting

a. Based on our understanding, Client to provide submittals to the City of Chandler for plans review. If requested, we will assist in providing submittals to the City.
b. Respond to reasonable City comments as required to obtain permit.
c. Provide PDF files for a bid Set for Clients or Owner's use in obtaining bids from General Contractors, and respond to general contractor's questions regarding construction documents.
d. Provide electronic CAD files for Architectural and Engineering drawings.

IV. Construction Administration & Post Construction Services
(Excluded to be provided under separate agreement)

C. ADDITIONAL SERVICES The following services are not included under Basic Services, and would be provided for a separate fee or on an hourly basis if requested by the Owner.

1. A change in the project scope or criteria, or making revisions to the design or drawings inconsistent with previously furnished information or approvals.

2. Design of other special systems, equipment, or manufacturing areas, storage systems, foodservice or kitchen equipment, or other special systems or equipment not previously mentioned.

3. Design of other future buildings or remodeling of the existing building. If requested, these can be provided at an additional service fee.

4. Additional meetings or presentations beyond those described in Section B above.

5. Post construction services or preparation of as-built drawings (the contractor will provide a set of as-built drawings, or provided under a separate CA services agreement).

6. Field engineering including site surveys, topographic surveys, construction staking, special structural inspection, or material testing (these services will be provided by the contractor).

7. Civil engineering or landscaping design services, coordination or permitting.

8. Structural engineering design or preparation of separate structural engineering drawings or calculations for other building components other than indicated in sections A & B.

9. As-Builts of the project area are assumed to be accurate; any changes in project scope due to inaccuracies will be an additional service.

10. The design of fire sprinkler system, this will be by the Installer or General Contractor.

11. Coordination or Design of special Signage or Sign permitting other than those integral to the overall building design or required by code.

12. Special studies or reports not listed above such as (sound, traffic, environmental, structural, geotechnical, or seismic) these will be provided by the owner or general contractor.

13. Permitting, planning for environmental remediation or cleanup.

14. Test and balance services, these to be provided by the contractor.

15. Special engineering / structural inspections. These will be provided by the contractor or owner.

16. Excludes County, State or Federal Environmental EPA / ADEQ permitting. It is assumed this will be performed by the owner or by others.

17. Plan Review and Permit fees.

D. FEE SUMMARY

Project Phase / Discipline		Fee
1. Schematic Design Phase		*$1,600*
2. Design Development & Construction Documents		*$14,400*
Includes design development level construction estimate		
a. Architectural	*($6,500)*	
b. Structural	*($3,400)*	
c. MPE	*($4,500)*	
3. Bidding and Permitting Phase		$1,200
Includes delivery of electronic cad files		
4. Geotechnical Engineering Report		*$2,800*
TOTAL – BASIC SERVICES		***$20,000***
*****(Excludes plan review and permit fees, etc.)**		

E. OTHER CONDITIONS

1. Upon acceptance of this proposal, we will prepare a standard AIA Owner / Architect Agreement or similar contract between Gavan & Barker Inc. and Gilliam Architecture LLC.

2. Our fee would be billed on a monthly basis in proportion to services performed through that date. Billings will be due and payable within 30 days of the invoice date. Invoices that remain unpaid beyond 60 days will accrue a service charge at the rate of 1.5% per month.

We look to the opportunity to work with Gavan and Barker, Inc. on this important project. If there are any questions or concerns with this proposal, please let me know, as we are flexible and want to provide the level of service that best meets your needs. Thank you for your consideration.

Sincerely,

Randy J. Gilliam, NCARB, RA
Principal
T. 480-236-1228

WRIGHT engineering corporation
ELECTRICAL ENGINEERING & LIGHTING DESIGN

December 19, 2019

Gavan & Barker, Inc.
3030 N. Central Ave., Suite 1530
Phoenix, AZ 85012

Re: **Snedigar Sports Complex Ramada**

Attn: John Barker

Dear John,

Wright Engineering appreciates this opportunity to submit a proposal for electrical engineering services on the above referenced project. The following services will be performed in a professional manner to meet City of Chandler requirements:

Electrical Design Scope of Services:

1. Coordinate design with owner, power company, civil engineer, and/or architect/landscape architect as required.
    a. Project coordination will be performed via email and telephone calls, no in-person meetings are included in this scope.
2. Visit the site to determine existing conditions and electrical configuration. Up to (1) one visit.
3. Review existing electrical drawings and load calculations for site.
4. Determine existing peak demand loads and coordinate proposed electrical loads.
5. Design the electrical power system to meet local codes and requirements.
6. Prepare 24” X 36” electrical construction drawings including an overall site plan showing all new equipment to include the following:
    a. Existing electrical service entrance section and distribution equipment
    b. Control equipment
    c. Ramada lighting and electrical
    d. Power feed to new restroom building, including coordination with building architect/engineer
7. Prepare photometric calculations showing all lighting averages, uniformities and any spill light at adjacent property lines.
8. All lighting on/off control will be designed per client’s requirements. All necessary equipment will be shown on the plans.
9. Prepare necessary elevation view and installation details of the equipment listed above to help determine layout and size.
10. Prepare load calculations and single line diagram.
11. Prepare panel schedule and other electrical installation details as required.

12. Prepare a conduit and wire table showing all power conduits and wire for equipment listed above.
13. Prepare system fault current and voltage drop calculations as required.
14. Prepare an engineer's opinion of probable electrical construction costs upon request.
15. Perform in-house QAQC review and modifications.
16. The above plans will be provided to client at 90% and 100% levels for submittal review and comment. Submittals will be made via email in digital PDF format. Client will print, copy and submit to owner as needed.
17. Up to one set of base drawing changes or updates will be included in this engineering cost proposal. Incorporating any additional base drawing changes will incur additional cost at the rates noted under additional services.
18. Municipal review comments will be responded to and addressed.

Construction Phase Scope of Services:

1. Post-Design Services:
    a. Review electrical equipment submittals and shop drawing packages for conformance to contract documents.
    b. Respond to RFIs.
2. Project Close-out:
    a. Visit the site at substantial completion to review the electrical installation and provide a punch list walk-thru report.
3. Prepare record drawings of the electrical installation based on inspection information as well as contractors marked up electrical plans.

Responsibilities of Others:

1. Provide Wright Engineering Corp. electronic base files in an AutoCAD format which includes all proposed and existing utilities, all proposed improvements, and any existing conditions that affect this scope.
2. Wright Engineering will submit plans to the civil engineer or landscape architect for submittal to the local government agencies for approval and permits.
3. It is anticipated that the electrical service for this project is existing, in the case that it does not exist; Designation of electrical service location will be determined by the local utility company. The owner is responsible for coordination of the design of all electrical utility power services during the design process.

Final Deliverables:

1. Upon completion of the design, we will provide one set each of final sealed documents bearing the signature of a registered electrical engineer in the State of Arizona.

Engineering Fee:

The above services will be provided as follows:
1. Electrical Design Services: **$2,310.00** (Lump Sum)
2. Construction Services: **$1,200.00** (Billed Hourly, Not to Exceed)

Please Note: Services as stated above can be provided in whole or part to meet client needs.

Additional Services:

Any services not specifically included in the Scope of Services section shall be additional services payable at an hourly fee at the following rates:

Principal	$165/hour	Designer	$105/hour
Senior Engineer	$145/hour	Draftsman	$95/hour
Engineer	$125/hour	Secretary	$55/hour

Printing Charges:

Although not anticipated, any printing and delivery requested will be charged as follows:

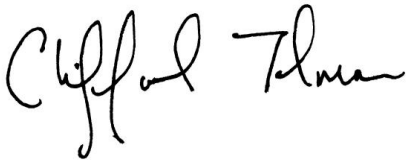
Blacklines	$ 2.00 each
Mylar Sepia	$18.00 each
Delivery Cost	cost

Billing:

We will bill you on a monthly basis for these services. Payment terms are Net 30 days. This proposal will be valid for the next 90 days. If you have any questions, please contact us at your earliest convenience.

I look forward to working with you on this project. Please show your acceptance of this proposal by signing below and returning one copy for my records.

Sincerely,



Clifford Tolman, P.E.
Wright Engineering Corporation

EXHIBIT "C"
INSURANCE REQUIREMENTS

1. General.

1.1 At the same time as execution of this Agreement, Consultant must furnish City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement will not be deemed to apply to required Workers' Compensation coverage.

1.2 Consultant and any of its subconsultants must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

1.4 City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Consultant from liabilities that might arise out of the performance of the Agreement services under this Agreement by Consultant, its agents, representatives, employees, subconsultants, and Consultant is free to purchase any additional insurance as may be determined necessary.

1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve Consultant from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

1.6 Use of subconsultants: If any work is subcontracted in any way, Consultant must execute a written contract with subconsultant containing the same Indemnification Clause and Insurance Requirements as City requires of Consultant in this Agreement. Consultant is responsible for executing the Agreement with the subconsultant and obtaining Certificates of Insurance and verifying the insurance requirements.

2. Minimum Scope and Limits of Insurance. Consultant must provide coverage with limits of liability not less than those stated below.

2.1 *Professional Liability.* If the Agreement is the subject of any professional services or work performed by Consultant, or if Consultant engages in any professional services or work adjunct or residual to performing the work under this Agreement, Consultant must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by Consultant, or anyone employed by Consultant, or anyone whose acts, mistakes, errors and omissions Consultant is legally liable, with a liability limit of $1,000,000 each claim and $2,000,000 all claims. In the event the Professional Liability

insurance policy is written on a "claims made" basis, coverage must extend for 3 years past completion and acceptance of the work or services, and Consultant, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

2.2 *Commercial General Liability-Occurrence Form.* Consultant must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.3 *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles*
Vehicle Liability: Consultant must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Consultant owned, hired, and non-owned vehicles assigned to or used in the performance of Consultant's work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.4 *Workers Compensation and Employers Liability Insurance:* Consultant must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Consultant employees engaged in the performance of work or services under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

3. Additional Policy Provisions Required.

3.1 *Self-Insured Retentions or Deductibles*. Any self-insured retentions and deductibles must be declared and approved by City. If not approved, City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to City, its officers, officials, agents, employees, and volunteers.

3.1.1. Consultant's insurance must contain broad form contractual liability coverage.

3.1.2. Consultant's insurance coverage must be primary insurance with respect to City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by City, its officers, officials, agents, and employees will be in excess of the coverage provided by Consultant and must not contribute to it.

3.1.3. Consultant's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3.1.4. Coverage provided by Consultant must not be limited to the liability assumed under the indemnification provisions of this Agreement.

3.1.5. The policies must contain a severability of interest clause and waiver of subrogation against City, its officers, officials, agents, and employees, for losses arising from Work performed by Consultant for City.

3.1.6. Consultant, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. Consultant must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

3.1.7. If a Certificate of Insurance is submitted as verification of coverage, City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

3.2. *Insurance Cancellation During Term of Contract/Agreement.*

3.2.1. If any of the required policies expire during the life of this Agreement, Consultant must forward renewal or replacement Certificates to City within 10 days after the renewal date containing all the required insurance provisions.

3.2.2. Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to City, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, Consultant or its insurance broker must notify City of any cancellation, suspension, non-renewal of any insurance within seven (7) days of receipt of insurers' notification to that effect.

3.3 City as Additional Insured. The policies are to contain, or be endorsed to contain, the following provisions:

3.3.1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, Consultant including City's general supervision of Consultant; Products and Completed operations of Consultant; and automobiles owned, leased, hired, or borrowed by Consultant.

3.3.2. City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by Consultant even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT "D"
SPECIAL CONDITIONS

Standard Details and Specifications. Consultant must be familiar with City's latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of City's Unified Development Manual, may be found and downloaded from City's website at http://www.chandleraz.gov/udm.

City Ownership of Project Documents. All work products (electronically or manually generated) including, but not limited to: plans, specifications, cost estimates, field notes, tracings, studies, investigations, design analyses, original drawings, original mylars, Computer Aided Drafting and Design (CADD) file diskettes which reflect all final drawings, and other related documents which are prepared in the performance of this Agreement (collectively referred to as "Documents") are to be and remain the property of City and are to be delivered to the Project Manager before the final payment is made to Consultant. In the event these Documents are altered, modified or adapted without the written consent of Consultant, which consent Consultant must not unreasonably withhold, City agrees to hold Consultant harmless to the extent permitted by law from the legal liability arising out of City's alteration, modification or adaptation of the Documents.

Re-use of Documents. The parties agree the documents, drawings, specifications and designs, although the property of City, are prepared for this specific project and are not intended nor represented by Consultant to be suitable for re-use for any other project. Any re-use without written verification or adaptation by Consultant for the specific purpose intended will be at City's sole risk and without liability or legal exposure to Consultant.

Patent Fees and Royalties. Consultant must pay all license fees and royalties and assume all costs incidental 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 Agreement for use in the performance of the work and if, to the actual knowledge of City, 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 will be disclosed by City in the Agreement. Consultant must defend, indemnify and hold harmless City and anyone directly or indirectly employed by City from and against all claims, damages, losses, and expenses (including attorneys' fees) arising out of any infringement of patent rights or copyrights incidental 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 Agreement, and must defend all such claims in connection with any alleged infringement of such rights.

License to City for Reasonable Use. With this Agreement, Consultant and its subconsultants hereby grant a license to City, its agents, employees, and representatives for an indefinite period of time to reasonably use, make copies, and distribute as appropriate the Documents, works or deliverables developed or created as a result of the Project and this

Agreement. This license also includes the making of derivative works.

Documents to Bear Seal. Consultant and its subconsultants must endorse by professional seal all plans, works, and deliverables prepared by each for this Agreement as required by state law.

CHANDLER arizona
Community of Innovation

City Council Memorandum **Development Services Memo No.** 21-009a

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
Derek D. Horn, Development Services Director
From: Susan Fiala, Senior Planner
Subject: Final Adoption of Ordinance No. 4962
ANX20-0002 Annexation and Initial City Zoning - South of the Southwest Corner of Gilbert and Ocotillo roads

Request: Annexation of 1.71 acres and Initial City Zoning
Location: South of the southwest corner of Gilbert and Ocotillo roads
Applicant: Randolph Carter, Sketch Architecture Company

Proposed Motion:

Move City Council adopt Ordinance No. 4962 approving ANX20-0002, Annexation and Initial City Zoning - South of the Southwest Corner of Gilbert and Ocotillo roads, as recommended by Planning staff.

Background Data:

- Located south of the southwest corner of Gilbert and Ocotillo roads
- Zoned Rural-43 (RU-43) within Maricopa County
- Approximately 1.71 acres
- Council Public Hearing held on October 15, 2020
- A Final Adoption of the Ordinance for rezoning is on this City Council Agenda

Ordinance introduced and tentatively adopted on February 11, 2021.

Surrounding Land Use Data:

North	Unincorporated Maricopa County (Arizona Olympian Gymnastics)	South	Commercial (Dollar Self storage)
East	Gilbert Road, then new CUSD high school (under construction)	West	Canal, then City of Chandler water reclamation facilities

General Plan and Area Plan Designations:

	Existing	Proposed

General Plan	Neighborhoods	No change
Southeast Chandler Area Plan	Envisioned Community/Regional Open Space and Recreational Opportunities	Traditional Suburban Character

Utility Service

Existing municipal water service, wastewater service, and reclaimed water are available in Gilbert Road.

Staff Comments

Attachments

Ordinance No. 4962

Exhibit A, Annexation Map and Legal Description

ORDINANCE NO. 4962

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, EXTENDING AND INCREASING THE CORPORATE LIMITS OF THE CITY PURSUANT TO THE PROVISIONS OF ARIZONA REVISED STATUTES TITLE 9, CHAPTER 4, ARTICLE 7, BY ANNEXING THERETO TERRITORY LOCATED SOUTH OF THE SOUTHWEST CORNER OF GILBERT AND OCOTILLO ROADS.

WHEREAS, a petition has been presented to the City Council of the City of Chandler signed by the property owners of at least one-half of the value of the real and personal property as would be subject to taxation by the City in the event of annexation and by more than one-half of the property owners within the territory and land hereinafter described as shown by the last assessment of said property, asking that the property be annexed to the City of Chandler; and

WHEREAS, the territory proposed for annexation is contiguous to the City of Chandler and not now embraced within its limits; and

WHEREAS, a blank petition was filed on September 21, 2020, with the Maricopa County Recorder, the 30-day waiting period ended on October 20, 2020, a Public Hearing was held on October 15, 2020, after proper notice was given, and the petition was circulated thereafter and signed; and,

WHEREAS, the City Council desires to comply with the petition and extend the corporate limits of the City to include the proposed territory; and,

WHEREAS, the petition sets forth a true and correct description of all the exterior boundaries of the entire area proposed to be annexed by the City and had attached thereto at all times an accurate map of the territory proposed to be annexed; and,

WHEREAS, no additions or alterations increasing or decreasing the territory sought to be annexed have been made after the petition had been signed by any owner of real and/or personal property in the territory; and,

WHEREAS, proper and sufficient certification and proof of the foregoing facts are now on file in the Office of the City Clerk, together with the original petition; and

WHEREAS, the City may elect to provide regular fire department services to a newly annexed area under A.R.S. § 48-813(A).

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. That the following described territory is annexed to the City of Chandler and that the present corporate limits are extended and increased to include the following described territory contiguous to the present City limits:

See Attached Exhibit 'A' Annexation Map and Legal Description

Section 2. Pursuant to A.R.S. § 48-813(A), the City will provide fire department services to the property depicted in Exhibit A as is generally provided to other residents within the city. The services shall take effect on the first day of July following the date on which this annexation becomes final as set forth in Section 6 below, without further action by the City Council.

Section 3. The existing zoning of the territory annexed is Rural-43 (RU-43) in Maricopa County, and the territory upon annexation is hereby zoned Agricultural (AG-1) District within the City of Chandler, which provides for densities and uses no greater than those permitted within the RU-43 District of Maricopa County.

Section 4. The Clerk is hereby instructed to file and record a copy of this Ordinance, together with an accurate map of the annexed territory, certified by the Mayor, in the Office of the County Recorder of Maricopa County, Arizona.

Section 5. The Development Services Department of the City of Chandler is hereby directed to enter such changes and amendments as may be necessary upon the Zoning Map of the Zoning Code in compliance with this ordinance.

Section 6. This ordinance shall take effect, and the annexation of the subject property shall become final, 30 days after this Ordinance is adopted.

INTRODUCED AND TENTATIVELY APPROVED by the City Council of the City of Chandler, Arizona, this _____ day of _____ 2021.

ATTEST:

_____ _____

CITY CLERK MAYOR

PASSED AND ADOPTED by the City Council of the City of Chandler, Arizona this _____ day of _____, 2021.

ATTEST:

_____ _____

CITY CLERK MAYOR

CERTIFICATION

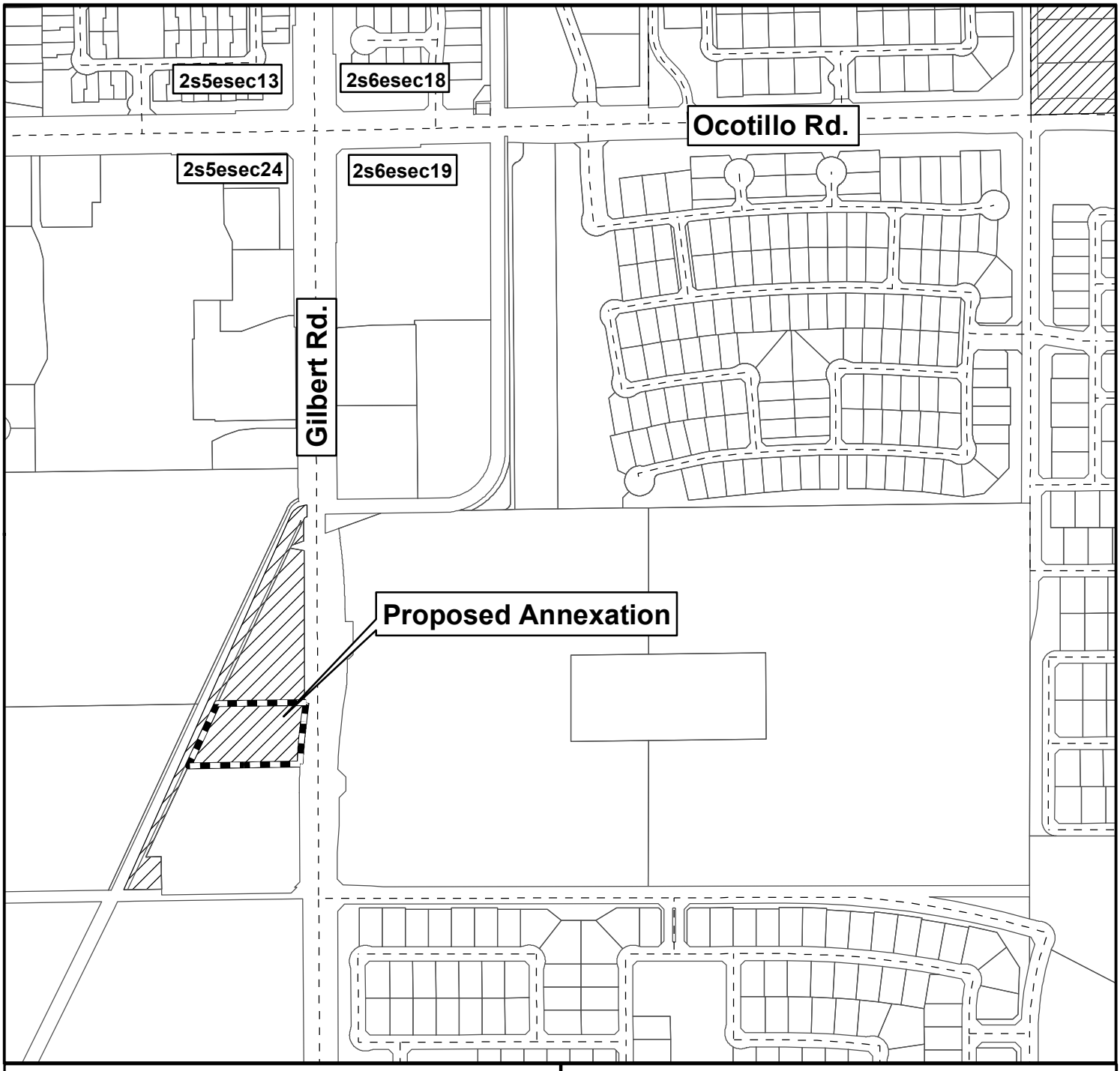
I HEREBY CERTIFY that the above and foregoing Ordinance No. 4962 was duly passed and adopted by the City Council of the City of Chandler, Arizona, at a regular meeting held on the _____ day of _____, 2021, and that a quorum was present thereat.

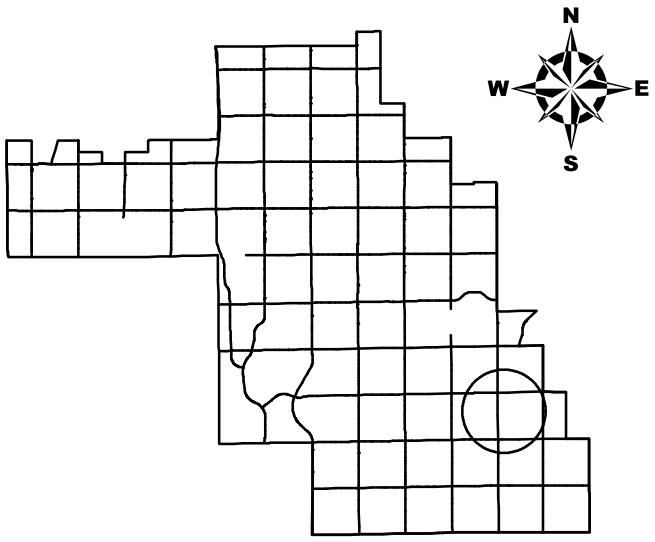
_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY TA

Published:





City of Chandler 1/19/2021

Annexation Map

Ordinance No. 4962

Proposed Annexation

South of the Southwest Corner
of Gilbert and Ocotillo roads

Incorporated Area

Unincorporated Area

0 125 250 500 750 1,000
Feet

Exhibit A

ANNEXATION EXHIBIT 'A'

'Metes & Bounds' Legal Description

August 24, 2020 Proj. No. 200300

That portion of the South half of the Southeast quarter of the Northeast quarter of Section 24, Township 2 South, Range 5 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, described as follows:

COMMENCING at the East quarter corner of said Section 24;

Thence North 00 degrees 01 minutes 31 seconds West 447.97 feet along the East line of said Section 24;

Thence South 89 degrees 26 minutes 25 seconds West 62.38 feet parallel to the North line of said South half of the Southeast quarter of the Northeast quarter to a found rebar on the West right-of-way line of Gilbert Road, said point being the POINT OF BEGINNING;

Thence South 89 degrees 26 minutes 25 seconds West 390.12 feet to a point 10.00 feet Southeast, as measured at right angles, to the East right-of-way line of the Eastern Canal, as described in instrument recorded in Book 191 of Deeds, page 386, records of Maricopa County, Arizona;

Thence North 25 degrees 31 minutes 04 seconds East 238.24 feet parallel to and 10.00 feet Southeast of the East right-of-way line of said Eastern Canal;

Thence North 89 degrees 26 minutes 25 seconds East 308.82 feet along the North line of said South half of the Southeast quarter of the Northeast quarter to a set rebar on the West right-of-way line of said Gilbert Road;

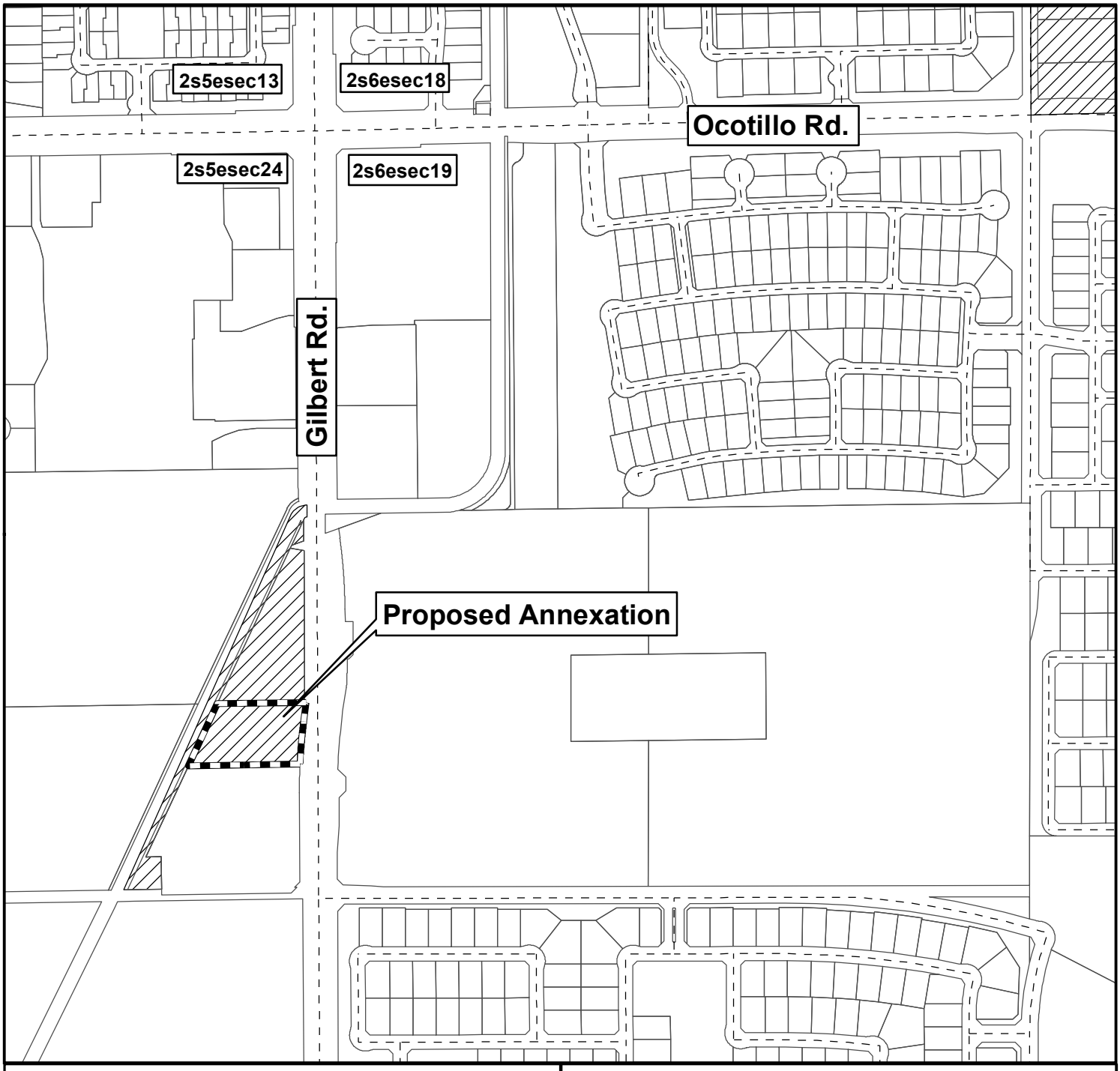
Thence Southwesterly 65.40 feet along a 1735.00 foot radius curve, concave Southeasterly and having a chord bearing of South 6 degrees 32 minutes 24 seconds West and chord length of 65.39 feet, and along the West right-of-way line of said Gilbert road to a set rebar at a Point of Compound Curvature;

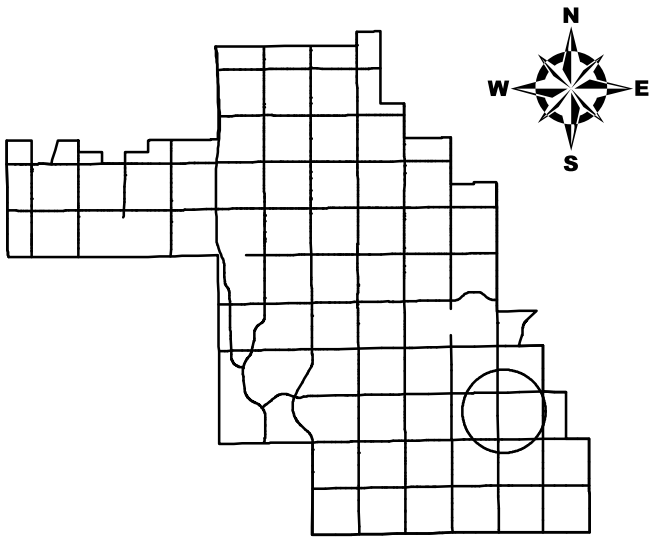
Thence Southwesterly 149.92 feet along a 1865.00 foot radius curve, concave Southeasterly and having a chord bearing of South 5 degrees 19 minutes 01 seconds West and chord length of 149.88 feet, and along the West right-of-way line of said Gilbert road to the POINT OF BEGINNING;

Above described parcel contains 1.711 Acres (74,538 square feet) more or less.

REGISTERED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
25403
WILLIAM H.
STANDAGE
8/24/20
Date Signed
ARIZONA, U.S.A.

409 S. EL DORADO ▪ MESA, ARIZONA 85202 ▪ P (480) 892-8090
engineering@standageeng.com





City of Chandler 1/19/2021

Annexation Map

Ordinance No. 4962

Proposed Annexation

South of the Southwest Corner
of Gilbert and Ocotillo roads

Incorporated Area

Unincorporated Area

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Feet

Exhibit A

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Above described parcel contains 1.711 Acres (74,538 square feet) more or less.

REGISTERED PROFESSIONAL LAND SURVEYOR
CERTIFICATE NO.
25403
WILLIAM H.
STANDAGE
8/24/20
Date Signed
ARIZONA, U.S.A.

409 S. EL DORADO ▪ MESA, ARIZONA 85202 ▪ P (480) 892-8090
engineering@standageeng.com

ITEM 4

City Council Memorandum **Development Services Memo No.** 21-010a

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
Derek D. Horn, Development Services Director
From: Susan Fiala, Senior Planner
Subject: Final Adoption of Ordinance No. 4960
PLH20-0034 Chandler La Paglia High School Seminary and Professional Offices
Request: Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for professional offices and institutional/educational uses
Location: South of the southwest corner of Gilbert and Ocotillo roads
Applicant: Randolph Carter, Sketch Architecture Company

Proposed Motion:

Move City Council adopt Ordinance No. 4960 approving PLH20-0034, La Paglia High School Seminary and Professional Offices, Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for professional offices and institutional/educational uses located south of the southwest corner of Gilbert and Ocotillo roads, subject to the conditions as recommended by Planning and Zoning Commission.

Background Data:

- Site is approximately 1.7 net acres.
- Annexation public hearing held on October 15, 2020.
- Final adoption of the Annexation ordinance is concurrently scheduled for this Council Agenda.
- Site is currently vacant.

Ordinance introduced and tentatively adopted on February 11, 2021.

Surrounding Land Use Data:

North	Commercial (Unincorporated - Arizona Olympian Gymnastics)	South	Commercial (Dollar Self Storage)
East	Gilbert Rd. then new Chandler Unified School District high school	West	RWCD Canal

General Plan and Area Plan Designations:

	Existing	Proposed
General Plan	Neighborhoods	No Change

Southeast Chandler Area Plan	Envisioned Community/Regional Open Space and Recreational Opportunities	Traditional Suburban Character

Proposed Development

Seminary	
Building Area	3,681 sq. ft. (+ 1,329 sq. ft. future expansion) Total of 5,010 sq. ft.
Building Height (max.)	22 ft.
Parking Required	25 spaces total (includes future expansion)
Parking Provided	27 spaces total
Future commercial offices/medical offices	
Building Area	6,336 sq. ft.
Building Height (max.)	30 ft.
Parking Required	43 additional spaces (1 space per 150 sq. ft.)
Parking Provided	70 total shared spaces

Review and Recommendation

Planning staff finds the proposal is consistent with the General Plan designation of Neighborhoods and the amendment to the Southeast Chandler Area Plan (SECAP). The Envisioned Community/Regional Open Space and Recreational Opportunities land use designation was identified at a time when the City owned property along the RWCD canal; however, the City property was sold and a regional open space and recreational area is no longer planned. A Traditional Suburban Character land use allows single story buildings along arterial streets, including for commercial and institutional/educational developments.

The request for rezoning to PAD provides for a limited list of permitted land uses which include the seminary (institutional/educational), general office, professional office, which generate low-traffic including but not limited to insurance, counseling, assisted living, real estate and title companies. Prohibited uses include medical and dental offices, retail of any kind, call centers, cleaners, barbers, personal services, animal boarding and similar businesses.

The site layout and building architecture is in conformance with the SECAP design guidelines for commercial/non-residential land uses. Architectural design of the future professional office building requires a new PDP application to evaluate building architecture. Signage for the future phase may require a PDP if the development prefers to modify the requirements of the Sign Code for PAD zoned properties. The seminary proposes one wall-mounted sign.

Staff finds the proposal to be consistent with the goals of the General Plan and the SECAP, as amended, and recommends approval subject to conditions.

Traffic Analysis

Gilbert Road is currently undergoing improvements from Ocotillo to Chandler Heights roads. Improvements consist of re-striping, narrowing medians to allow for three lanes in the northbound and southbound direction, and modifications to the medians for turning movements. Traffic signals are proposed at two locations including the intersections of Gilbert and Brooks Farm road and the alignment of the existing driveway of the Olympian Gymnastics with the new entrance to the new high school. Pedestrian crossings will be designated at both traffic signals. The applicant states that the students will be transported by shuttle between the new high school and the new seminary.

Public / Neighborhood Notification

- This request was noticed in accordance with the requirements of the Chandler Zoning Code.
- A Neighborhood Meeting sign was posted on the property.
- A virtual neighborhood meeting was held on December 3, 2020. Three residents attended virtually to obtain project information. No questions were asked. No opposition to request was stated. An attendee commented the project is a nice fit.
- As of writing this memo, Planning staff is not aware of opposition to the request.

Planning and Zoning Commission Vote Report

Planning and Zoning Commission meeting January 20, 2021.
Motion to Approve.

In Favor: 7 Opposed: 0

Commission discussed the proposed permitted land uses and recommended that medical and dental office uses be prohibited uses due to traffic and circulation patterns both on site and off site. Stipulations No. 2 and No. 3 are revised to address Commission's direction.

Recommended Conditions of Approval

Planning and Zoning Commission recommends the City Council approve rezoning from Agricultural District (AG-1) to PAD for professional offices and institutional/educational uses, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Chandler La Paglia High School Seminary and Professional Offices" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0034, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.
2. The following uses shall be permitted:

   Institutional uses including church, seminary, nursing home, and educational entity.
   Commercial Office uses including general office, professional office, insurance, counseling, real estate and title companies.
   Other similar institutional and/or office uses not listed here may be permitted upon determination by the Planning Administrator that it will not generate a greater or more intense traffic impact on the area.

3. The following uses shall be prohibited: medical and dental offices, retail, call centers, dry cleaners, personal services (e.g., barber, nail and beauty salons, tattoo, day spa), animal daycare and boarding, bakery, bars, drive-through and restaurants.
4. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.
5. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.
6. Prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/lot developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that the subdivision is located adjacent to or nearby a City of Chandler water facility/recharge ponds that may cause adverse noise, odors, and other externalities. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot property deeds shall include a disclosure statement outlining that the site is adjacent to or nearby a wastewater treatment facility, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. The disclosure shall be presented to prospective

homebuyers on a separate, single form for them to read and sign prior to or simultaneously with executing a purchase agreement. This responsibility for notice rests with the homebuilder/lot developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

Attachments

Ordinance No. 4960
Vicinity Maps
Development Booklet, Attachment A

ORDINANCE NO. 4960

AN ORDINANCE OF THE CITY OF CHANDLER, ARIZONA, AMENDING THE ZONING CODE AND MAP ATTACHED THERETO, BY REZONING PARCELS FROM AGRICULTURAL DISTRICT (AG-1) TO PLANNED AREA DEVELOPMENT (PAD) FOR PROFESSIONAL OFFICES AND INSTITUTIONAL/EDUCATIONAL USES AS REPRESENTED IN CASE PLH20-0034 (CHANDLER LA PAGLIA HIGH SCHOOL SEMINARY AND PROFESSIONAL OFFICES) LOCATED SOUTH OF THE SOUTHWEST CORNER OF GILBERT AND OCOTILLO ROADS WITHIN THE CORPORATE LIMITS OF THE CITY OF CHANDLER, ARIZONA; PROVIDING FOR THE REPEAL OF CONFLICTING ORDINANCES; AND PROVIDING FOR PENALTIES.

WHEREAS, the application for rezoning certain property within the corporate limits of Chandler, Arizona, has been filed in accordance with Article XXVI of the Chandler Zoning Code; and

WHEREAS, the application has been published in a local newspaper with general circulation in the City of Chandler, giving fifteen (15) days' notice of time, place and date of public hearing; and

WHEREAS, a notice of such hearing was posted on the property at least seven (7) days prior to said public hearing; and

WHEREAS, a public hearing was held by the Planning and Zoning Commission as required by the Zoning Code.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. Legal Description of Property:
As described in EXHIBIT 'A'

Said property is hereby rezoned from Agricultural District (AG-1) to Planned Area Development (PAD) for Professional Offices and Institutional/Educational Uses, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Chandler La Paglia High School Seminary and Professional Offices" and kept on file in the City of Chandler Planning Division, in File No. PLH20-0034, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.

2. The following uses shall be permitted:

   Institutional uses including church, seminary, nursing home, and educational entity.

   Commercial Office uses including general office, professional office, medical office, dental, insurance, counseling, real estate and title companies.

   Other similar institutional and/or office uses not listed here may be permitted upon determination by the Planning Administrator that it will not generate a greater or more intense traffic impact on the area.

3. The following uses shall be prohibited: retail, call centers, dry cleaners, personal services (e.g., barber, nail and beauty salons, tattoo, day spa), animal daycare and boarding, bakery, bars, drive-through and restaurants.

4. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.

5. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.

6. Prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/lot developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that the subdivision is located adjacent to or nearby a City of Chandler water facility/recharge ponds that may cause adverse noise, odors, and other externalities. The “Public Subdivision Report”, “Purchase Contracts”, CC&R’s, and the individual lot property deeds shall include a disclosure statement outlining that the site is adjacent to or nearby a wastewater treatment facility, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. The disclosure shall be presented to prospective homebuyers on a separate, single form for them to read and sign prior to or simultaneously with executing a purchase agreement. This responsibility for notice rests with the homebuilder/lot developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

Section 2. The Planning Division of the City of Chandler is hereby directed to enter such changes and amendments as may be necessary upon the Zoning Map of said Zoning Code in compliance with this Ordinance.

Section 3. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance, or any parts hereof, are hereby repealed.

Section 4. In any case, where any building, structure, or land is used in violation of this Ordinance, the Planning Division of the City of Chandler may institute an injunction or any other appropriate action in proceeding to prevent the use of such building, structure, or land.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, then this entire ordinance is invalid and shall have no force or effect.

Section 6. A violation of this Ordinance shall be a Class 1 misdemeanor subject to the enforcement and penalty provisions set forth in Section 1-8.3 of the Chandler City Code. Each day a violation continues, or the failure to perform any act or duty required by this Ordinance or the Zoning Code, shall constitute a separate offense.

INTRODUCED AND TENTATIVELY APPROVED by the City Council of the City of Chandler, Arizona, this ____ day of _____, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

PASSED AND ADOPTED by the City Council of the City of Chandler, Arizona, this _____ day of _____, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Ordinance No. 4960 was duly passed and adopted by the City Council of the City of Chandler, Arizona, at a regular meeting held on the ____ day of _____, 2021, and that a quorum was present thereat.

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY TA

Published

EXHIBIT 'A'
Legal Description

That portion of the South half of the Southeast quarter of the Northeast quarter of Section 24, Township 2 South, Range 5 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona, described as follows:

COMMENCING at the East quarter corner of said Section 24;

Thence North 00 degrees 01 minutes 31 seconds West 447.97 feet along the East line of said Section 24;

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409 S. El Dorado ▪ Mesa, Arizona 85202 ▪ P (480) 892-8090
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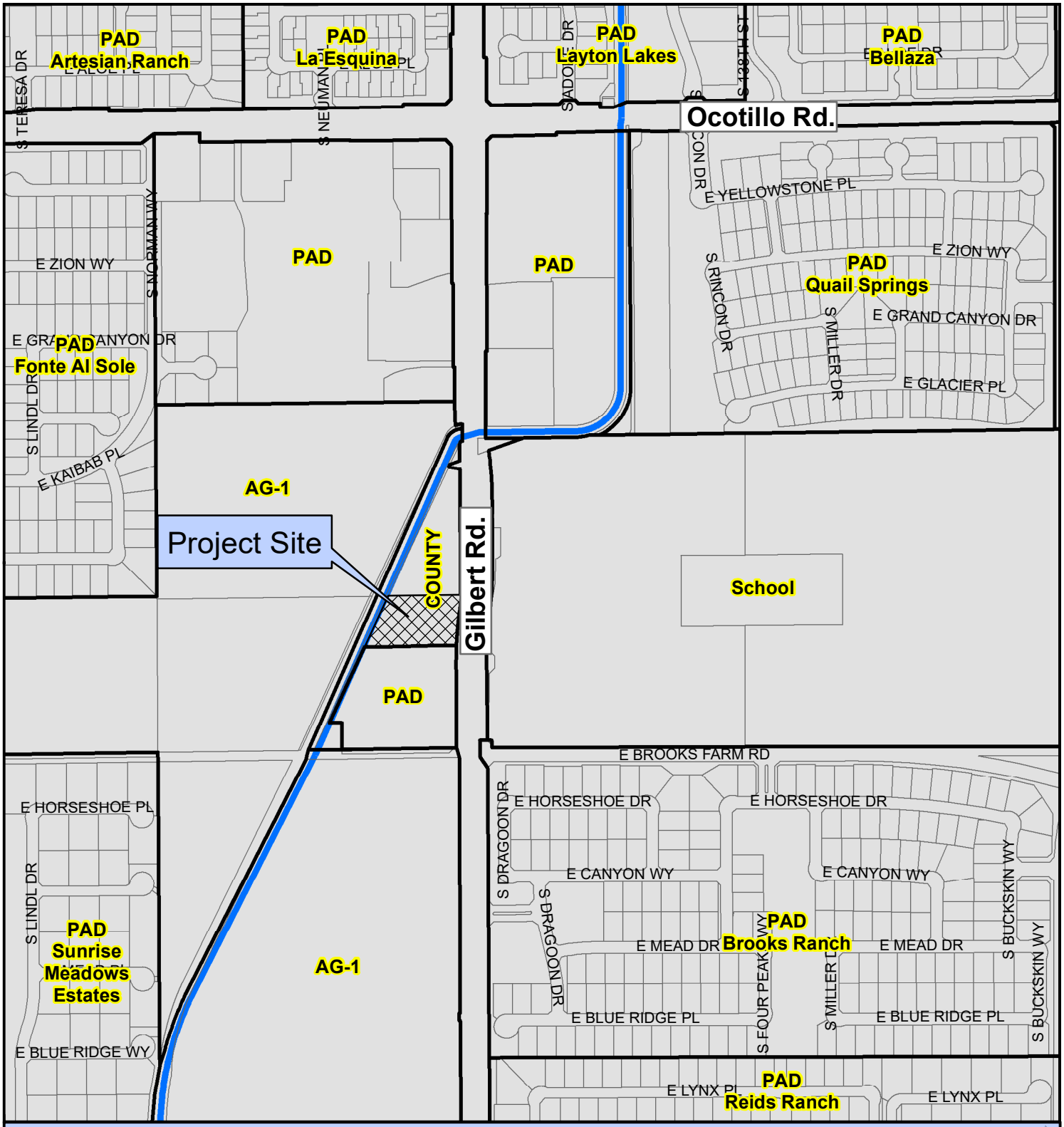
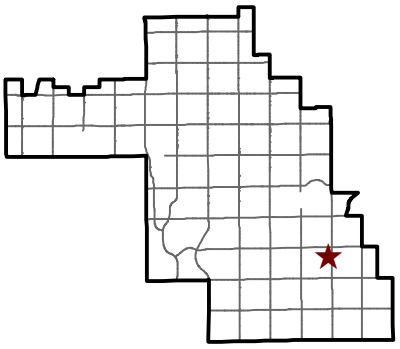


PLH20-0033/PLH20-0034 La Paglia High School Seminary and Professional Offices

Proposed Project Details

AREA PLAN AMENDMENT/REZONE/PDP
1.7 Acres
Professional Offices and Institutional/Educational Uses



Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

PLH20-0033/PLH20-0034 La Paglia High School Seminary and Professional Offices

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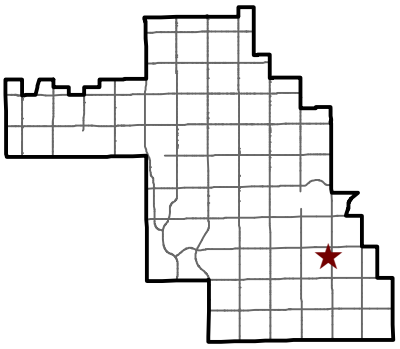

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Narrative
Area Plan Amendment
Rezoning and
Preliminary Development Plan

Gilbert Road - 2100’ South of Ocotillo West Side

PLH20-0033 & PLH20-0034

Chandler La Paglia High School Seminary and Professional Offices

Sketch
Architecture Company

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Introduction:

Our request is annexation into City of Chandler and change the zoning from RU-43 (Maricopa Co. Zoning) to PAD and Preliminary Development Plan approval.

The property (303-44-020M) for the proposed Chandler La Paglia High School Seminary and Professional Offices is located on Gilbert Road approximately 2100' south of Ocotillo Rd. on Gilbert Rd. The project will include a +/- 5,010 sf seminary religious school and +/-6,722 sf professional office building (developed by others) behind the seminary. These offices are intended to be doctors, dentists, counselors, and the like. This is NOT intended for retail use.

The site is vacant and has historically been used for agriculture. It is in Maricopa County; zoned RU-43.

West: Canal and overflow ponds – City of Chandler (AG-1)
North: Privately owned business – Maricopa County (RU-43 Zoning)
East: Gilbert Road and new High School (AG-1)
South: Dollar Self-Storage – City of Chandler (PAD)

Request rezone to a Planned Area Development (PAD): The request is to rezone to Planned Area Development (PAD) for a seminary and professional offices. Other uses will be low traffic generating including, offices, medical, dental, insurance, counseling, assisted living, real estate offices, title companies. Prohibited uses include retail sales (of any kind), call centers, cleaners, barbers/hair and nail salons, animal boarding, and similar uses.

First phase of the project is the seminary building and the development of the .72 acres. It is intended as part of phase one to include perimeter landscaping, wall along the canal, asphalt fire lane, and dust control on the office site. **(See Exhibits B, F, and G)**

Second phase will include the office site development, parking, interior landscaping, lighting, etc. which will be permitted separately. **(See Exhibits C, H, and I)**

Waivers: Phase 2 will require an amendment to the PAD zoning if uses are changed and require more parking than shown on this PAD.

Future Land Use:

The Church of Jesus Christ of Latter-Day Saints is proposing a new seminary building to be built to service the students of the new La Paglia High School and a one acre lot ,behind the seminary, for medical, professional offices, or other similar uses. The back development will be designed and built by others and will require site plan approval if it deviates from this proposal layout. Parcel A (Seminary) = .72 acres and Parcel B (Offices) = .99 acres.

Project Information:

Site Design: The site has been designed with the seminary as the predominate use on this site located facing Gilbert Road with parking and access drive located on the north side of the site. As per the Chandler Southeast Area Plan, the majority of the parking is located behind the seminary building to minimize the intrusion of parking along the streetscape. The parking visible from the street will have 42" high decorative screen walls and enhanced landscaping. **(See Exhibits E and F)**

Seminary Hours of operation: 7am to 5pm M-F (occasionally on Saturday)

Seminary Employees: 5 teachers + 1 administrative assistant

Number of Students: 30 students per Classroom x 3 classrooms (at full build-out) = 90 per hour
90 students per class hour x 6 hours = 540 (at maximum capacity)

Method of Transportation: Students attending seminary classes will walk or be bussed to class by the seminary. No student is permitted to drive to seminary for regular classes. Parent conferences and other occasional meetings may be held during the week.

Parking: The design of the site parking is consistent with the area plan statement: "should not dominate the commercial site in areas adjacent to any street. Parking should be concentrated in areas away from the street, behind front pad buildings…" Joint access, parking, and retention agreements will allow joint used.

Required Parking:		
Seminary Parking (Phase 1):	5,010 sf / 200 sf	= 25 spaces
Medical Office Parking (Phase 2):	6,336 sf / 150 sf	= 43 spaces
Total **Required** Parking:	11,246 sf	68 spaces
Provided Parking:		
Seminary Parking (Phase 1):		28 spaces
Medical Office Parking (Phase 2):		42 spaces
Total **Provided** Parking:		70 spaces

Retention will be located south of the seminary building and will be utilized for on-site retention and the total development will be a combination of underground and traditional site retention.

Refuse and barrel enclosures shall harmonize with the building design and will be split face masonry.

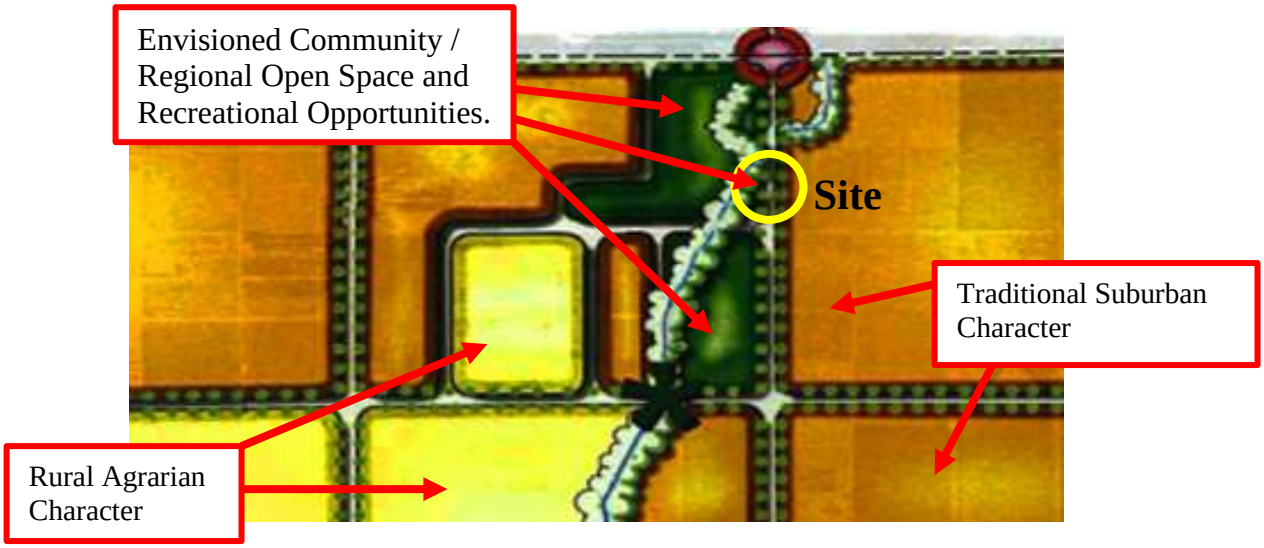
Landscaping has been thoughtfully designed utilizing several existing trees and integrating them into the development. 48 inch and 36 inch box trees along with the relocated existing trees will be used to create a "established" look to the development per Area Plan. **(See Exhibits F, G, H, and I)**

The north property line will require a "dissimilar use" landscape buffer which includes evergreen trees 7'-0" minimum in height and enhanced shrubbery. A six-foot decorative wall will be provided adjacent to the canal (on the west). Existing decorative walls along the north property line and to the south the development has been previously built on the property line.

Land Use Compatibility with the General Plan and the Southeast Chandler Area Plan and submitted area plan Amendment:

Area Plan: Currently the Area Plan designates this area as "Community/Regional Open Space". The adjacent properties have been previously developed into commercial uses with the southern property, Dollar Self Storage, having amended the area plan to "Traditional Suburban Character. "Low profile development should characterize the area – single story buildings along arterial street, including commercial developments, should be encouraged." The proposed development of a seminary building, and a professional office building would be compatible with the character designations of the area plan that is being submitted for amendment. The development, when completed, will create a stepped hierarchy with the seminary in the front along Gilbert Road. With parking located on the north and ample retention/open space to the south, this will create a dimensional view. The road view will be one of a deep low density development consistent with "broad vistas and an open feeling…" as written in the Southeast Chandler Area Plan and consistent with "accomplished through deeper setbacks for new development along roadways" from the same document. The offices have been moved to the very back of the site, creating these opportunities.

Current Area Plan:

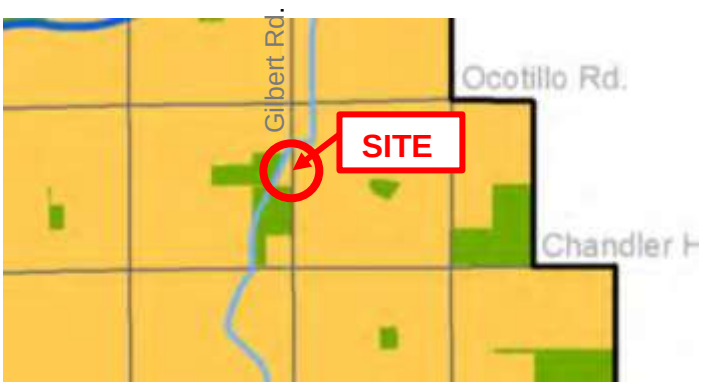


Existing Land Use:

Proposed Land Use:

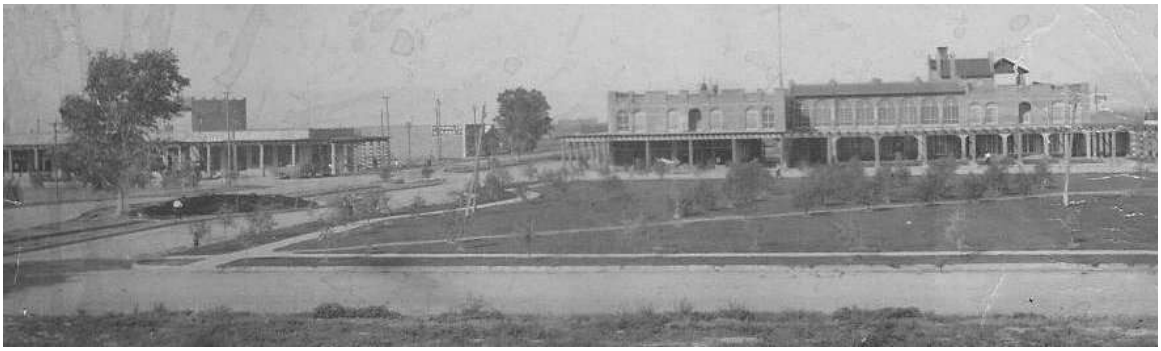
General Plan designation of Neighborhoods: "This category allows a range of residential densities and a variety of non-residential uses such as commercial, institutional, public facilities, and commercial offices based upon location…".

.



The site is compatible with the General Plan and meets the criteria for "Traditional Suburban Character" of the Chandler Southeast Area Plan that is being submitted for amendment. The site is sandwiched between a self-storage to the south and a gymnastic school "Arizona Olympian Gymnastics". To the west are the evaporation ponds. To the east is the new Chandler "La Paglia" High school. These schools represent the essence of the Area Plan. On the practical side, Gilbert Road is a busy arterial and the seminary building and offices will be a low use with the seminary parking for the teachers with no student parking. The medical and/or offices to the west of the seminary (designed by others) will be oriented to uses compatible with education, counseling, and for the most part, student medical needs feeding off the school. No retail will be permitted. These represent very low traffic uses and reflect the suburban feeling of the area. Enhancing the suburban feel, the building is set 50 feet back from Gilbert Road giving generous space for landscaping. Parking will be predominately in the west side behind the seminary building, again helping the project have a very suburban feel.

Building Character & Historic Photos



Adherence to the Building Architecture in the Chandler Southeast Area Plan: As stated in the Area Plan, Section B-Commercial Guidelines, "…the architectural style chosen for a project should achieve a reflection of the rural/agrarian character and be of a quality design. The architectural style of the seminary building is consistent with historical architectural materials and form in the original Chandler architectural vernacular. Simple straight-line buildings simple pitched roofs or low-slope, durable materials (brick) were often used as shown in the following photos. The architecture provides a historical/traditional presence and the feeling of solidity with perceived "thick" walls. Windows are inset and not flush. As shown in the following photographs, historic materials included brick, tile, pre-cast (shown as columns). The seminary building will utilize similar materials. The form will be sympathetic with the following photos in a simplified form.

As seen in the preceding photos, the materials are consistent with the Building Guidelines of the Southeast Chandler Area Plan.

The development will use these materials **(see Attached Exhibits):**

1. Concrete roof tiles
2. Brick
3. Traditional style windows (white)
4. Metal or aluminum accents
5. Pre-cast elements (columns and plinths as shown in bottom photo)
6. EIFS or stucco

The professional offices (by others) occurring behind the seminary building will have a more modern take of the traditional architecture of the seminary building and will use the same materials as outlined above. The shapes are simple and reflect the vernacular of traditional western architecture with a modern feel, utilizing the same design materials as the seminary.

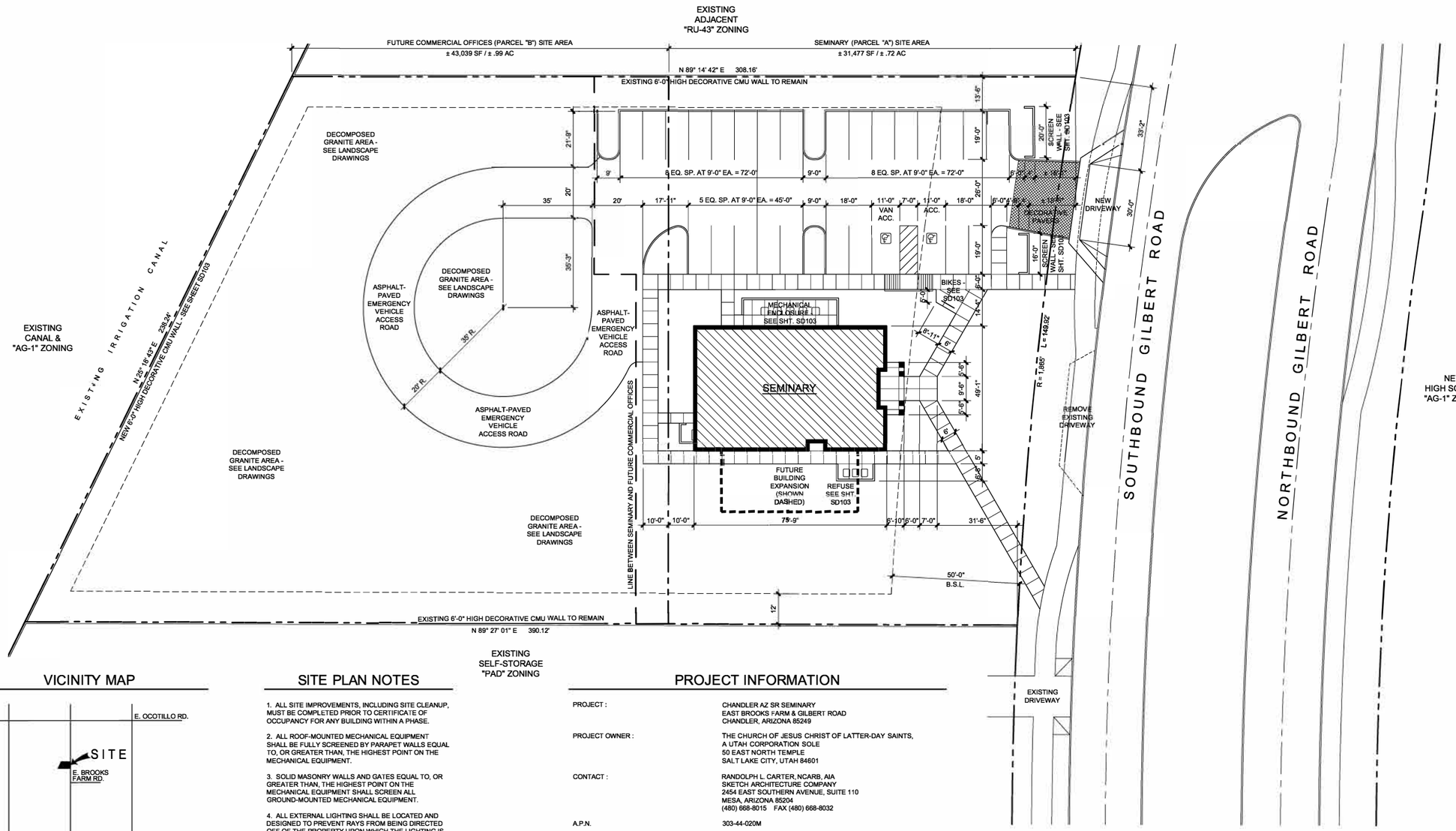
We respectfully request the approval of the Area Plan Amendment, Preliminary Development Plan and rezone to PAD.

Chandler La Paglia High School Seminary

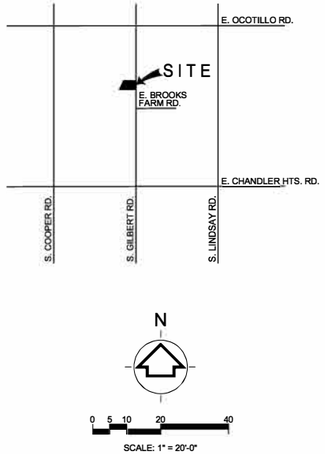
2100’ south of Ocotillo and Gilbert Road

Sketch
Architecture Company

Exhibit A



VICINITY MAP



SITE PLAN NOTES

1. ALL SITE IMPROVEMENTS, INCLUDING SITE CLEANUP, MUST BE COMPLETED PRIOR TO CERTIFICATE OF OCCUPANCY FOR ANY BUILDING WITHIN A PHASE.
2. ALL ROOF-MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
3. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND-MOUNTED MECHANICAL EQUIPMENT.
4. ALL EXTERNAL LIGHTING SHALL BE LOCATED AND DESIGNED TO PREVENT RAYS FROM BEING DIRECTED OFF OF THE PROPERTY UPON WHICH THE LIGHTING IS LOCATED.
5. THE FIRE DEPARTMENT DOUBLE CHECK ASSEMBLY SHALL BE PAINTED TO MATCH THE ADJACENT WALL COLOR.
6. SIGNS REQUIRE SEPARATE PERMIT.
7. THERE SHALL BE NO OBSTRUCTION OF SITE SIGNAGE BY LANDSCAPE PLANT MATERIAL, AND THAT SUCH MUST BE RELOCATED/CORRECTED BEFORE THE FIELD INSPECTION WILL ACCEPT/PASS THE SIGN IN THE FIELD OR ISSUE A CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
8. ALL TRANSFORMER BOXES, METER PANELS AND ELECTRICAL EQUIPMENT, BACKFLOW DEVICES OR ANY OTHER UTILITY EQUIPMENT NOT ABLE TO BE OR REQUIRED TO BE SCREENED BY LANDSCAPING OR WALLS, SHALL BE PAINTED TO MATCH BUILDING COLOR
9. ALL WALLS OVER 7'-0" IN HEIGHT, SITE LIGHTING, SIGNAGE, RAMADAS AND SHADE STRUCTURES REQUIRE SEPARATE SUBMITTAL AND PERMITS.

PROJECT INFORMATION

PROJECT :	CHANDLER AZ SR SEMINARY EAST BROOKS FARM & GILBERT ROAD CHANDLER, ARIZONA 85249
PROJECT OWNER :	THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS, A UTAH CORPORATION SOLE 50 EAST NORTH TEMPLE SALT LAKE CITY, UTAH 84601
CONTACT :	RANDOLPH L. CARTER, NCARB, AIA SKETCH ARCHITECTURE COMPANY 2454 EAST SOUTHERN AVENUE, SUITE 110 MESA, ARIZONA 85204 (480) 668-8015 FAX (480) 668-8032
A.P.N.	303-44-020M
GROSS SITE AREA (PARCELS "A" & "B") :	± 74,516 SF / ± 1.71 AC
SEMINARY (PARCEL "A") SITE AREA :	± 31,477 SF / ± .72 AC
COMMERCIAL (PARCEL "B") SITE AREA :	± 43,039 SF / ± .99 AC
EXISTING ZONING :	RU-43
PROPOSED ZONING (PARCELS "A" & "B") :	PAD
PROPOSED LAND USE (PARCEL "A") :	SEMINARY
PROPOSED LAND USE (PARCEL "B") :	FUTURE COMMERCIAL OFFICES / MEDICAL
BUILDING AREAS :	SEMINARY 3,681 SF SEMINARY (FUTURE EXPANSION) 1,329 SF FUTURE COMMERCIAL OFFICES / MEDICAL 6,336 SF TOTAL 11,346 SF
BUILDING HEIGHTS :	SEMINARY = 22'-0" & FUTURE COMMERCIAL OFFICES / MEDICAL = 30'-0"
SITE COVERAGE (PARCEL "A") :	± 15.9% (5,010 SF SEMINARY / 31,477 SF PARCEL)
SITE COVERAGE (PARCEL "B") :	± 6.79% (6,336 SF FUTURE COMMERCIAL OFFICES / MEDICAL / 43,039 SF PARCEL)
LANDSCAPE COVERAGE (PARCELS "A" & "B" :	± 42% (31,274 SF PROVIDED / 74,516 SF TOTAL BOTH PARCELS)
PARKING REQUIRED :	SEMINARY 5,010 SF / 200 = 25 SPACES
PARKING PROVIDED :	25 STANDARD PARKING SPACES 1 ACCESSIBLE PARKING SPACES 1 VAN-ACCESSIBLE PARKING SPACES 27 PARKING SPACES

Exhibit B

COPYRIGHT OF THE ARCHITECT - ALL RIGHTS RESERVED. THESE PLANS, AS AN INSTRUMENT OF SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT. ALL REPRODUCTIONS, COPIES OR USAGE OF THESE PLANS, IN WHOLE OR IN PART, BY ANY MEANS WHATSOEVER, WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT, IS STRICTLY FORBIDDEN. VISUAL CONTACT WITH THESE PLANS SHALL CONSTITUTE PRIMA FACIE EVIDENCE OF ACCEPTANCE OF THESE RESTRICTIONS. ANY UNAUTHORIZED USE SHALL BE AT THE SOLE RISK OF THE USER AND WILL BE SUBJECT TO LEGAL ACTION, INCLUDING ALL DAMAGES, COMPENSATORY, CONSEQUENTIAL AND PUNITIVE. ALL RIGHTS RESERVED.

Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph 480.668.8015 fax 480.668.8032

CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

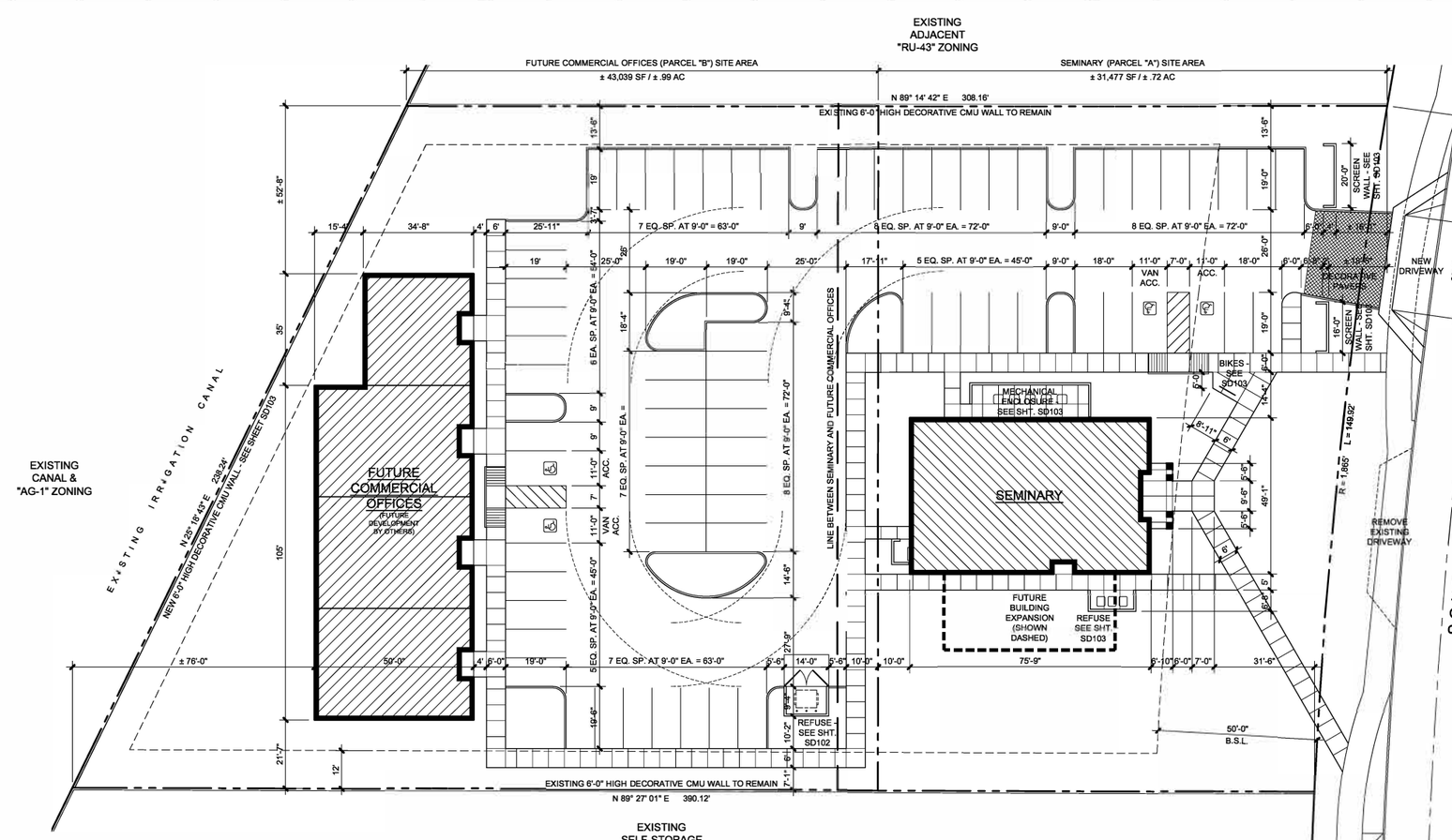
LDS PROPERTY NO. 501-7305

PRELIMINARY NOT FOR CONSTRUCTION
REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT
RANDOLPH L. CARTER
CERTIFICATE NO. 33855
ARIZONA, U.S.A.

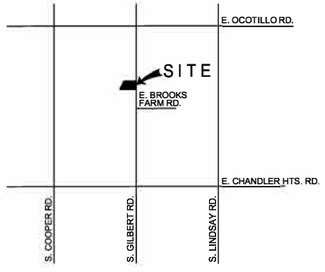
SAC Project Number 2020-07

ARCHITECTURAL SITE PLAN - SEMINARY

SD101



VICINITY MAP



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PARKING PROVIDED :	66 STANDARD PARKING SPACES 2 ACCESSIBLE PARKING SPACES 2 VAN-ACCESSIBLE PARKING SPACES 70 SHARED PARKING SPACES

Exhibit C

X32 | ARCHITECTURAL SITE PLAN - SEMINARY & FUTURE COMMERCIAL OFFICES | 1" = 20'-0"

Sketch
Architecture Company
3454 East Southern Avenue, Mesa, Arizona 85206 ph 480.668.8015 fax 480.668.8032

CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

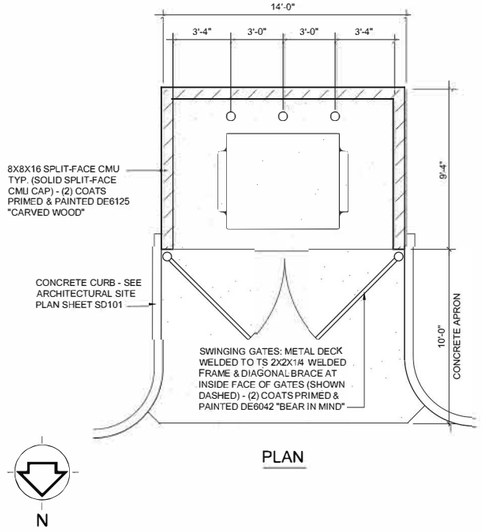
PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number 2020-07

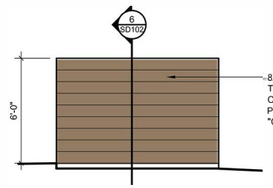
ARCHITECTURAL SITE PLAN - SEMINARY & FUTURE COMMERCIAL OFFICES

SD101A

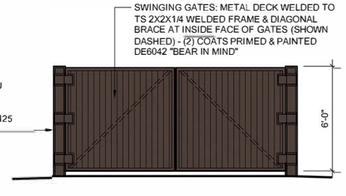
DRAWINGS OF INSTRUMENTS OF SERVICE - ALL REPORTS, DRAWINGS, SPECIFICATIONS, COMPUTER FILES, FIELD DATA, NOTES AND OTHER DOCUMENTS AND INSTRUMENTS OF SERVICE PREPARED BY SKETCH ARCHITECTURE COMPANY (SKETCH) IN CONNECTION WITH THE PROJECT, ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT AND SHALL NOT BE USED BY ANY PERSON OR ENTITY FOR ANY PURPOSE WHATSOEVER WITHOUT THE EXPRESS WRITTEN CONSENT OF THE ARCHITECT. THE ARCHITECT SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHT, IN THE DRAWINGS AND OTHER DOCUMENTS AND INSTRUMENTS OF SERVICE PREPARED BY SKETCH ARCHITECTURE COMPANY AND IN THE PROJECT. ANY REUSE OF THE DRAWINGS AND OTHER DOCUMENTS AND INSTRUMENTS OF SERVICE WITHOUT THE EXPRESS WRITTEN CONSENT OF SKETCH ARCHITECTURE COMPANY FOR THE SPECIFIC PROJECT INTENDED SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO SKETCH ARCHITECTURE COMPANY. ALL RIGHTS RESERVED.



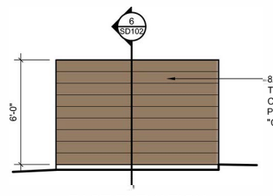
PLAN



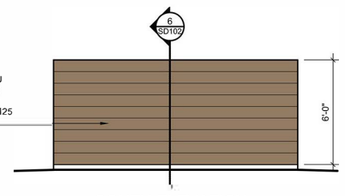
WEST ELEVATION



NORTH ELEVATION

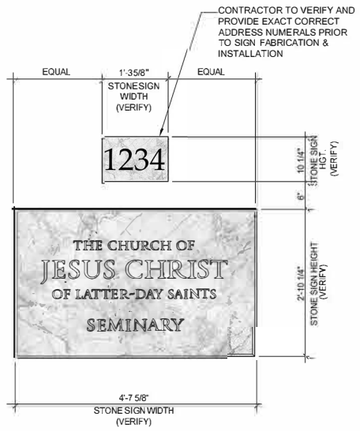


EAST ELEVATION

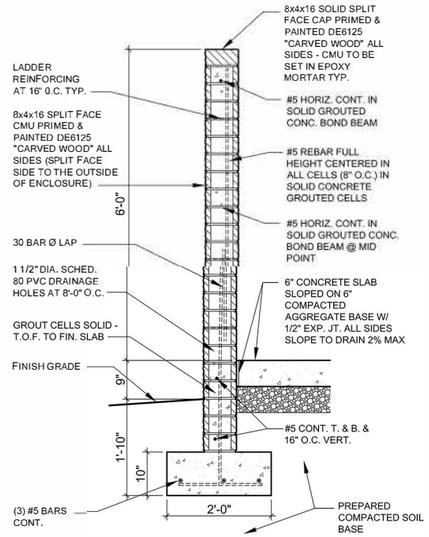


SOUTH ELEVATION

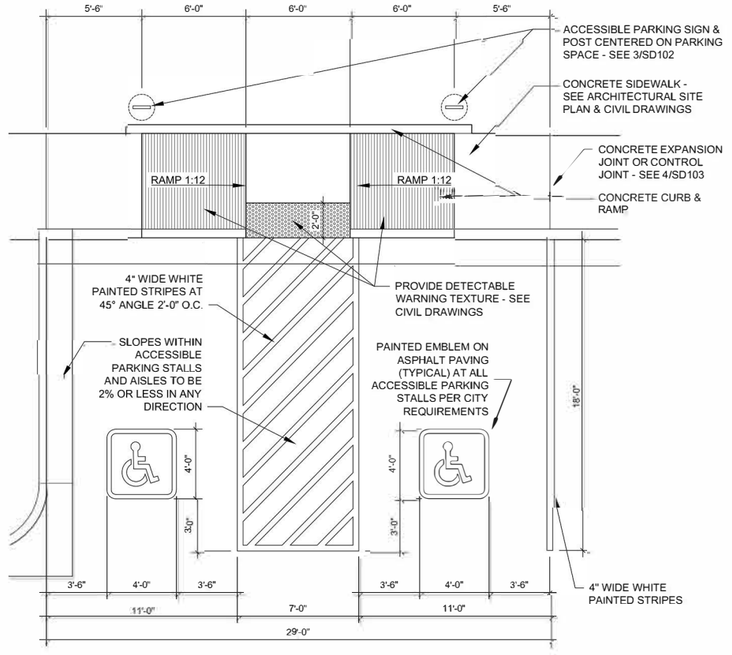
8 REFUSE ENCLOSURE
1/4" = 1'-0"



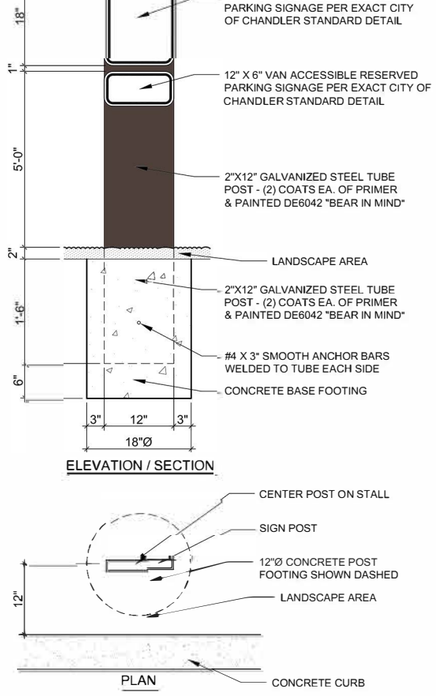
7 SEMINARY SIGNAGE
3/4" = 1'-0"



6 REFUSE ENCLOSURE WALL SECTION
3/4" = 1'-0"



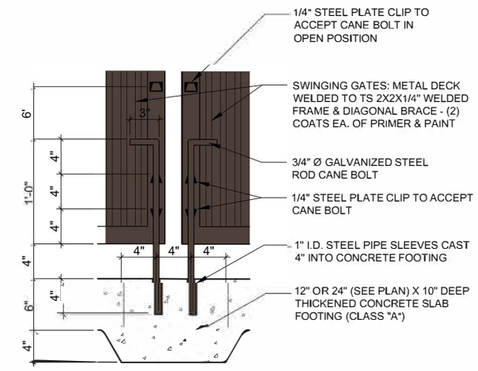
4 ACCESSIBLE PARKING SPACE & RAMP
N.T.S.



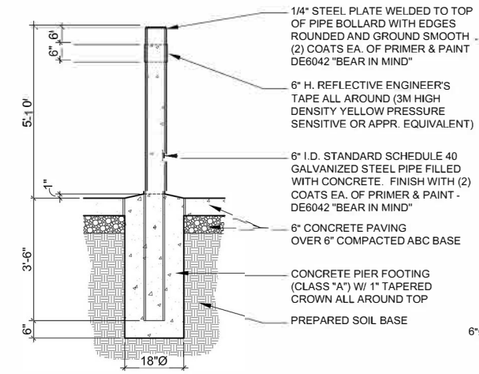
ELEVATION / SECTION

PLAN

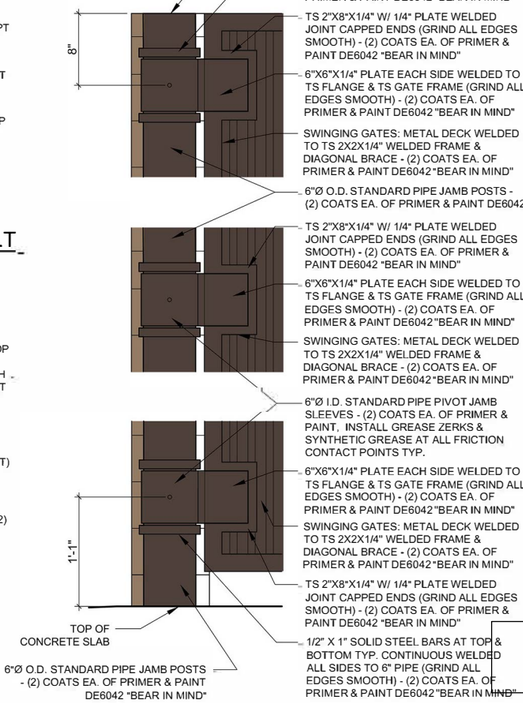
3 ACCESSIBLE PARKING SIGN & POST
N.T.S.



5 REFUSE ENCLOSURE GATE & CANE BOLT
1 1/2" = 1'-0"



2 PIPE BOLLARD
1/2" = 1'-0"



1 REFUSE ENCLOSURE GATES
1 1/2" = 1'-0"

Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph 480.898.8915 fax 480.898.8932

CHANDLER AZ SR SEMINARY
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

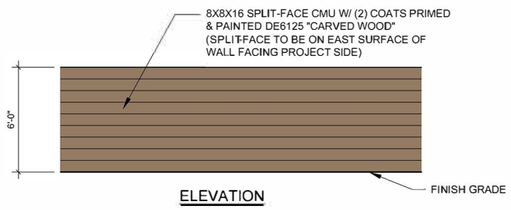
REGISTERED ARCHITECT
RANDOLPH L. CARTER
ARIZONA, U.S.A.

SAC Project Number
2020-07

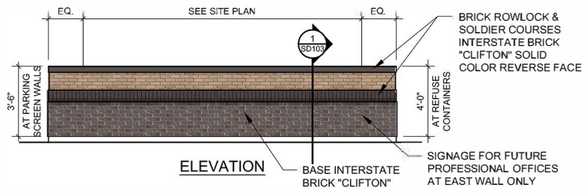
SITE DETAILS

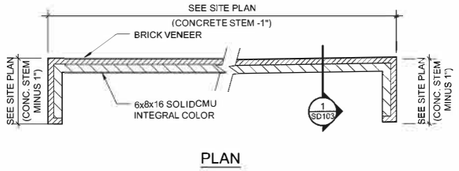
Exhibit D

SD102

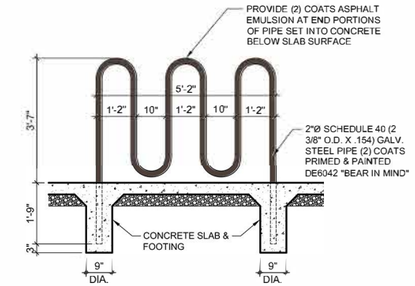


7 WEST PROPERTY LINE WALL
1/4" = 1'-0"

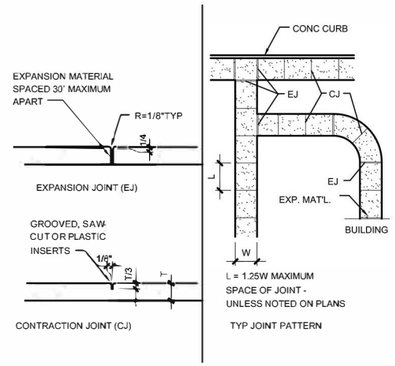




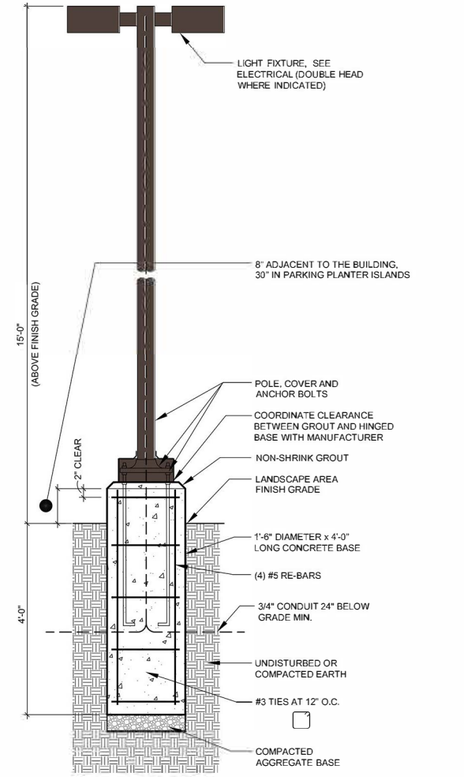
5 PARKING SCREEN WALLS
1/4" = 1'-0"



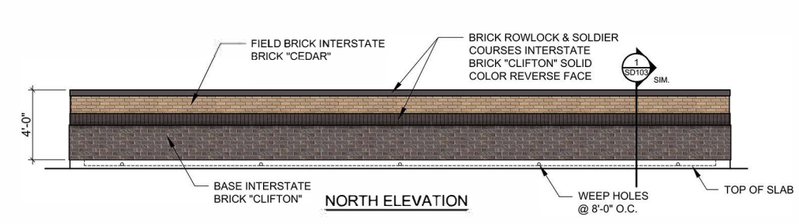
6 BICYCLE RACK
3/4" = 1'-0"

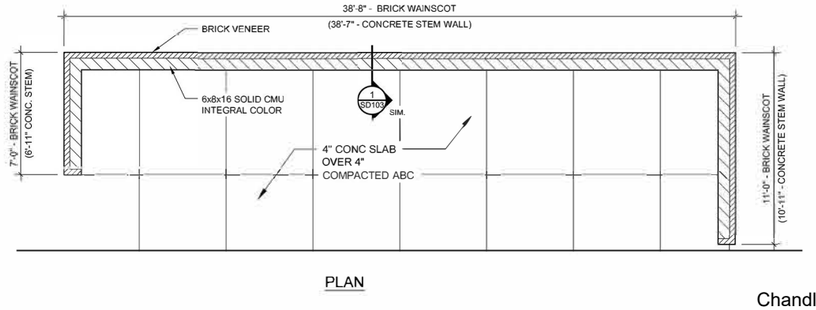


4 SIDEWALK JOINT DETAILS
N.T.S.

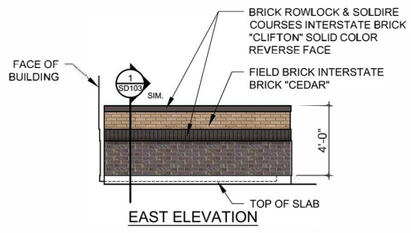


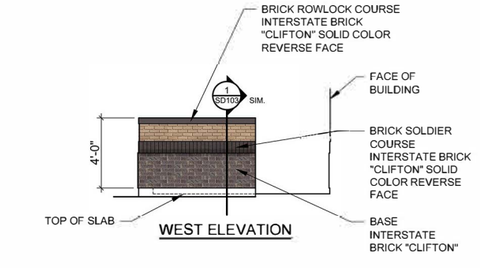
3 PARKING AREA LIGHT STANDARD
3/4" = 1'-0"



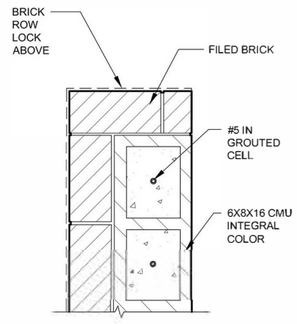


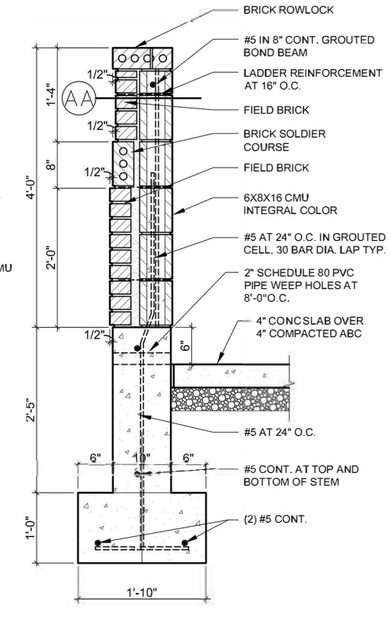
2 MECHANICAL ENCLOSURE
1/4" = 1'-0"





1 MECHANICAL ENCLOSURE WALL SECTION
1" = 1'-0"





Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph.480.668.8015 fax.480.668.8032

CHANDLER AZ SR SEMINARY
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

REGISTERED ARCHITECT
18898
RANDOLPH L. CARTER
Not Signed, Invalid
ARIZONA, U.S.A.

SAC Project Number
2020-07

SITE DETAILS

Exhibit E

SD103

BOUNDER SCHEDULE:

(A) 4'x4'x3' DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 12")
(B) 3'x3'x30" DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 12")
(C) 2'x2'x18" DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 6")

phillip r. ryan
landscape architect p.c.
landscape architecture & planning
4916 s. quiet way
gilbert, arizona 85298
(480) 899-5813 fax (480) 963-3674

Sketch
Architecture Company
2904 East Southern Avenue, Mesa, Arizona 852 ph. 480.966.8616 fax 480.668.8232

PLANT SCHEDULE: (FOR THIS SHEET ONLY)

EXISTING TREE	SALVAGED MESQUITE TREE FROM ON SITE or 48" BOX NATIVE MESQUITE	6 TOTAL	
EXISTING TREE	TO REMAIN		
EXISTING SHRUB	TO REMAIN		
GERCIDIUM FLORIDUM "D.M." DESERT MUSEUM PALO VERDE	36" BOX MULTI-TRUNK 10' HT., 4.5' SP., 1 1/2" CAL.	6 TOTAL	
PISTACHIA CH. "RED PUSH" RED PUSH PISTACHIA	24" BOX MINIMUM 8' HT., 4.5' SP., 1-1/2" CAL.	4 TOTAL	
CHITALPA TASHKENSIS CHITALPA	24" BOX MINIMUM 8' HT., 4.5' SP., 1 1/4" CAL.	17 TOTAL	
CAESALPINIA MEXICANA MEXICAN BIRD OF PARADISE	15 GALLON TREE FORM	6 TOTAL	
ACACIA MULGA MULGA TREE	24" BOX MINIMUM 8' HT., 4' SP., 1 1/2" CAL.	22 TOTAL	
CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GALLON	13 TOTAL	
LEUCOPHYLLUM LANGMANIAE RIO BRAVO SAGE	5 GALLON FULL, PAST CAN	32 TOTAL	
YUCCA PARVIFOLIA RED YUCCA	1 GALLON FULL, PAST CAN	22 TOTAL	
RUELLIA BRITTONIANA CALIFORNICA RUELLIA	5 GALLON FULL, PAST CAN	36 TOTAL	
GALLISTEMON VIMINALIS "LITTLE JOHN" LITTLE JOHN BOTTLE BRUSH	5 GALLON FULL, PAST CAN	16 TOTAL	
CASSIA STURTII GREEN DESERT CASSIA	5 GALLON FULL, PAST CAN	77 TOTAL	
TECOMA STANS V. ORANGE JUBILEE ORANGE JUBILEE	5 GALLON FULL, PAST CAN	13 TOTAL	
ACACIA REDOLENS "D.C." DESERT CARPET REDOLENS	5 GALLON FULL, PAST CAN	83 TOTAL	
MUHLENBERGIA CAPILLARIS "REGAL MIST" PINK MUHLY	5 GALLON FULL, PAST CAN	34 TOTAL	
EREMOPHYLLA GLABRA OUTBACK SUNRISE	5 GALLON FULL, PAST CAN	45 TOTAL	
LANTANA SELLOWIANA "T.P." TRAILING PURPLE LANTANA	1 GALLON FULL, PAST CAN	88 TOTAL	
DECOMPOSED GRANITE	1/2" SCREENED APACHE BROWN	24,175 S.F. 2" DEEP	
GRANITE COBBLE	4"-8" DIA SANTA FE GOLD	185 S.F.	
DECOMPOSED GRANITE	1/2" MINUS APACHE BROWN	27,990 S.F. 2" DEEP	

Phase 1 Preliminary Landscape Plan
Scale 1:20
20 10 0 20
GRAPHIC SCALE
NORTH

PLAN KEY NOTES:

1. EXISTING SIDEWALK
2. 3' HIGH DECORATIVE SCREEN WALL
3. EXISTING MASONRY WALL
4. EXISTING 815600 TREES TO REMAIN
5. FIRE HYDRANT
6. SIGHT VISIBILITY LINE (NO OBJECTS GREATER THAN 24" IN HT.)
7. SALVAGED MESQUITE TREES FROM ON-SITE
8. NOT USED
9. EXISTING BUSH BOUGAINVILLEA TO REMAIN
10. EXISTING BUSH MORNING GLORY TO REMAIN
11. EXISTING BRITTLE BUSH TO REMAIN
12. EXISTING AGAVE PLANTS TO REMAIN
13. EXISTING CONCRETE CURB AT PROPERTY LINE TO REMAIN
14. FUTURE BUILDING LINE
15. BIKE RACK
16. UNDERGROUND STORM WATER TANK PER CIVIL DWGS.
17. RETENTION BASIN PER CIVIL DWGS.
18. MOUNDING TO GRADES SHOWN
19. DRAINAGE PIPE PER CIVIL DWGS.
20. DECORATIVE WALL PER ARCH. DWGS.

CHANDLER AZ SR SEMINARY FS

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO.

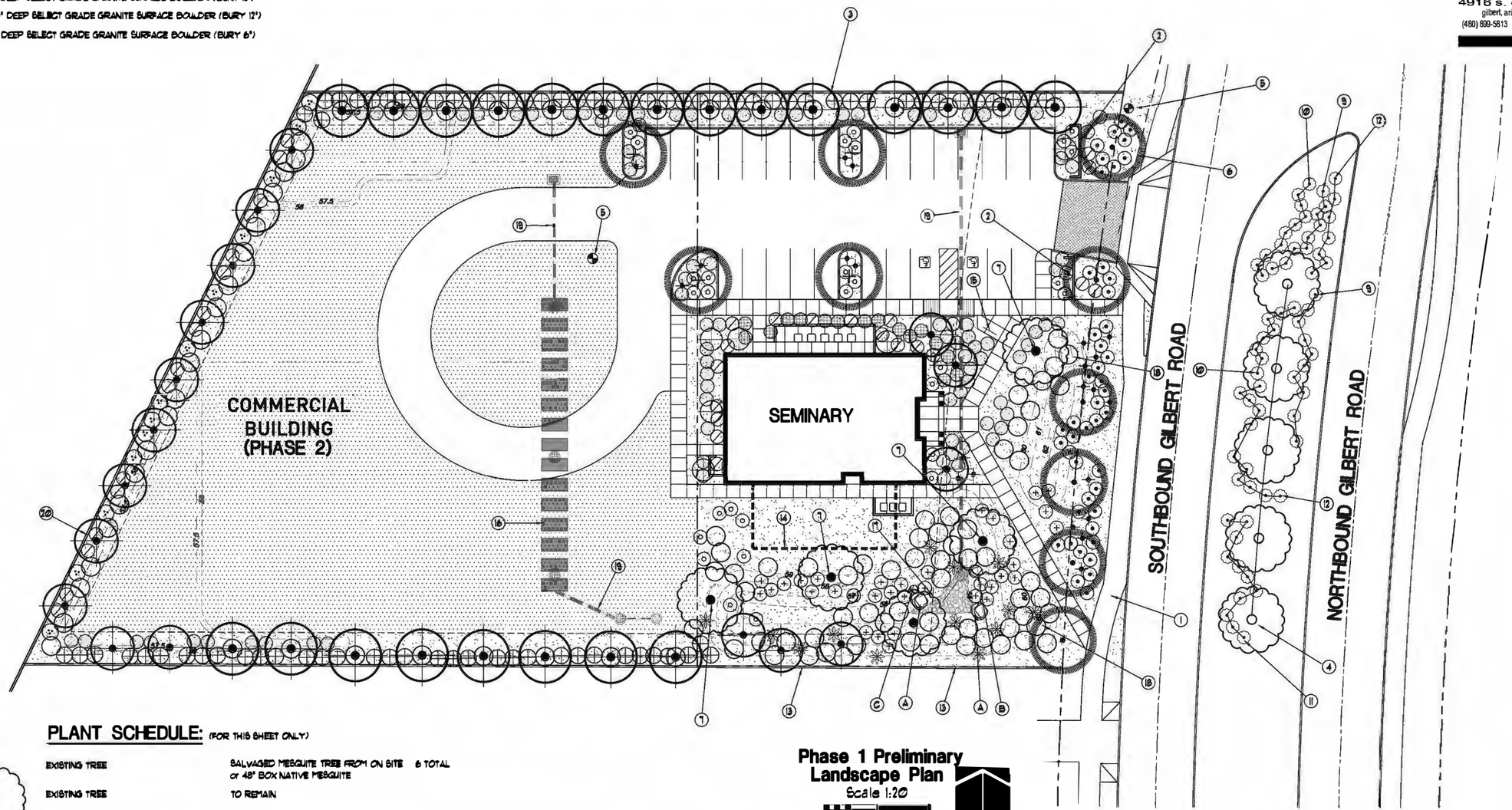
SAC Project Number
2020.07

REGISTERED LANDSCAPE ARCHITECT
14891
PHILLIP R. RYAN
9/21/20
ARIZONA U.S.A.
Expires 03/31/22

Exhibit F L-1

BOUNDER SCHEDULE:

(A) 4'x4'x3' DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 12')
(B) 3'x3'x3Ø' DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 12')
(C) 2'x2'x18' DEEP SELECT GRADE GRANITE SURFACE BOULDER (BURY 6")



PLANT SCHEDULE: (FOR THIS SHEET ONLY)

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	EXISTING TREE	TO REMAIN	
	EXISTING SHRUB	TO REMAIN	
	CERCIDIUM FLORIDUM 'D.M.' DESERT MUSEUM PALO VERDE	36" BOX MULTI-TRUNK 10' HT. 4.5' SP. 1 1/2" CAL.	6 TOTAL
	PISTACHIA CH. 'RED PUSH' RED PUSH PISTACHIA	24" BOX MINIMUM 9' HT. 4.5' SP. 1-1/2" CAL.	4 TOTAL
	CHITALPA TASHKENSIS CHITALPA	24" BOX MINIMUM 8' HT. 4.5' SP. 1 1/4" CAL.	17 TOTAL
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	ACACIA MULGA MULGA TREE	24" BOX MINIMUM 8' HT. 4' SP. 1 1/2" CAL.	22 TOTAL
	CAESALPINIA PULCHERRIMA RED BIRD OF PARADISE	5 GALLON	13 TOTAL
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	YUCCA PARVIFOLIA RED YUCCA	1 GALLON FULL, PAST CAN	22 TOTAL
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	CALLISTEMON VIMINALIS 'LITTLE JOHN' LITTLE JOHN BOTTLE BRUSH	5 GALLON FULL, PAST CAN	16 TOTAL
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	TECOMA STANS V. ORANGE JUBILEE ORANGE JUBILEE	5 GALLON FULL, PAST CAN	13 TOTAL
	ACACIA REDOLENS 'D.C.' DESERT CARPET REDOLENS	5 GALLON FULL, PAST CAN	83 TOTAL
	MUHLENBERGIA CAPILLARIS 'REGAL MIST' PINK MUHLY	5 GALLON FULL, PAST CAN	34 TOTAL
	EREMOPHYLLA GLABRA OUTBACK SUNRISE	5 GALLON FULL, PAST CAN	45 TOTAL
	LANTANA SELLOWIANA 'T.P.' TRAILING PURPLE LANTANA	1 GALLON FULL, PAST CAN	88 TOTAL
	DECOMPOSED GRANITE	1/2" SCREENED APACHE BROWN	24,715 S.F. 2" DEEP
	GRANITE COBBLE	4"-8" DIA. SANTA FE GOLD	185 S.F.
	DECOMPOSED GRANITE	1/2" MINUS APACHE BROWN	27,930 S.F. 2" DEEP

Phase 1 Preliminary Landscape Plan
Scale 1:20
20 10 0 20
GRAPHIC SCALE
NORTH

PLAN KEY NOTES:

1. EXISTING SIDEWALK
2. 3' HIGH DECORATIVE SCREEN WALL
3. EXISTING MASONRY WALL
4. EXISTING SIGGOO TREES TO REMAIN
5. FIRE HYDRANT
6. SIGHT VISIBILITY LINE (NO OBJECTS GREATER THAN 24" IN HT.)
7. SALVAGED MESQUITE TREES FROM ON-SITE
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19. DRAINAGE PIPE PER CIVIL DWGS.
20. DECORATIVE WALL PER ARCH. DWGS.

phillip r. ryan
landscape architect p.c.
landscape architecture & planning
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Sketch
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CHANDLER AZ SR SEMINARY FS
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO.

SAC Project Number
2020-07

LANDSCAPE ARCHITECT
14821
PHILLIP R. RYAN
9/21/20
Date Signed
ARIZONA U.S.A.
Expires 03/31/22

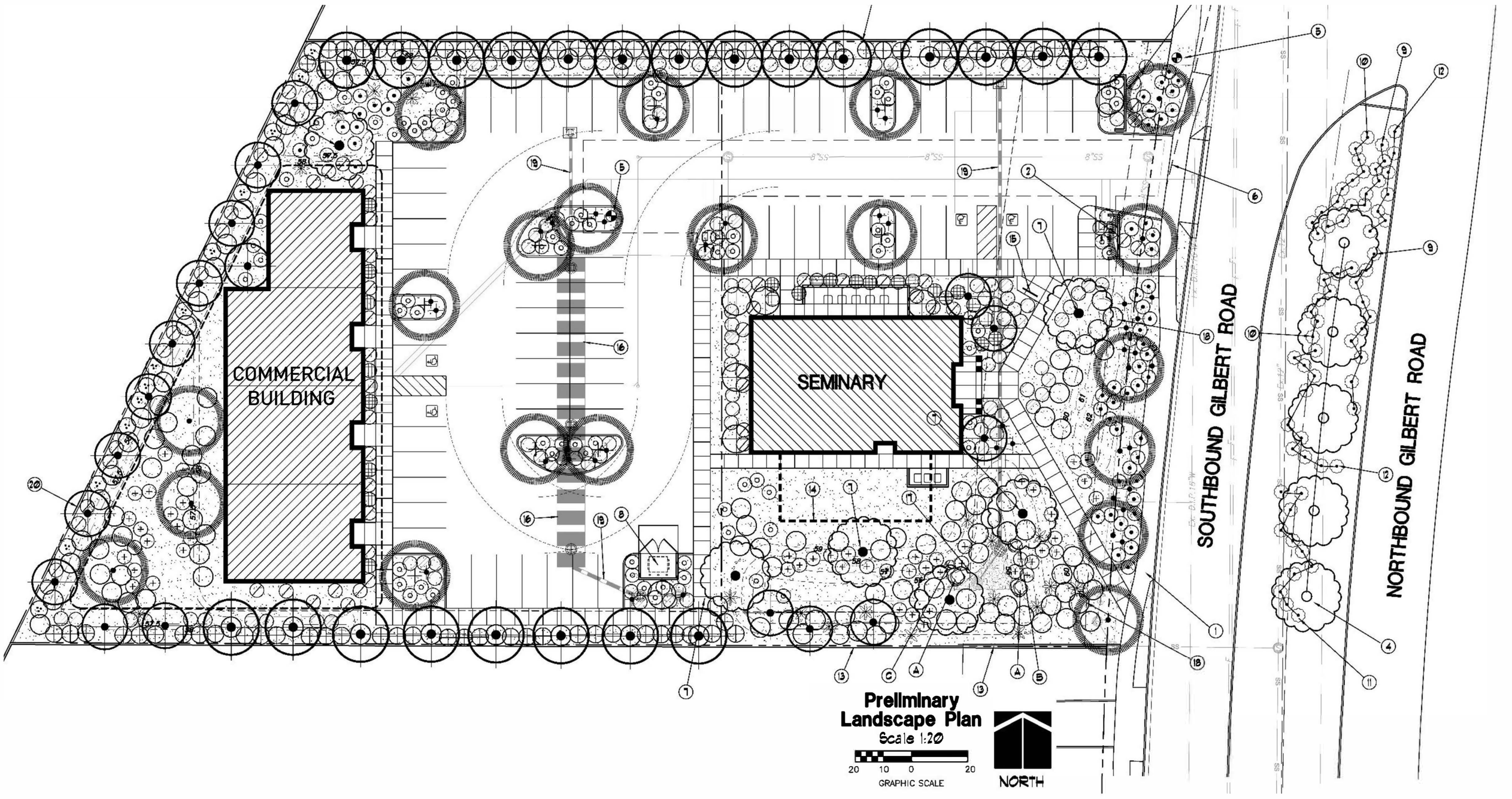
Exhibit G | L-1

Conceptual Landscape Plan

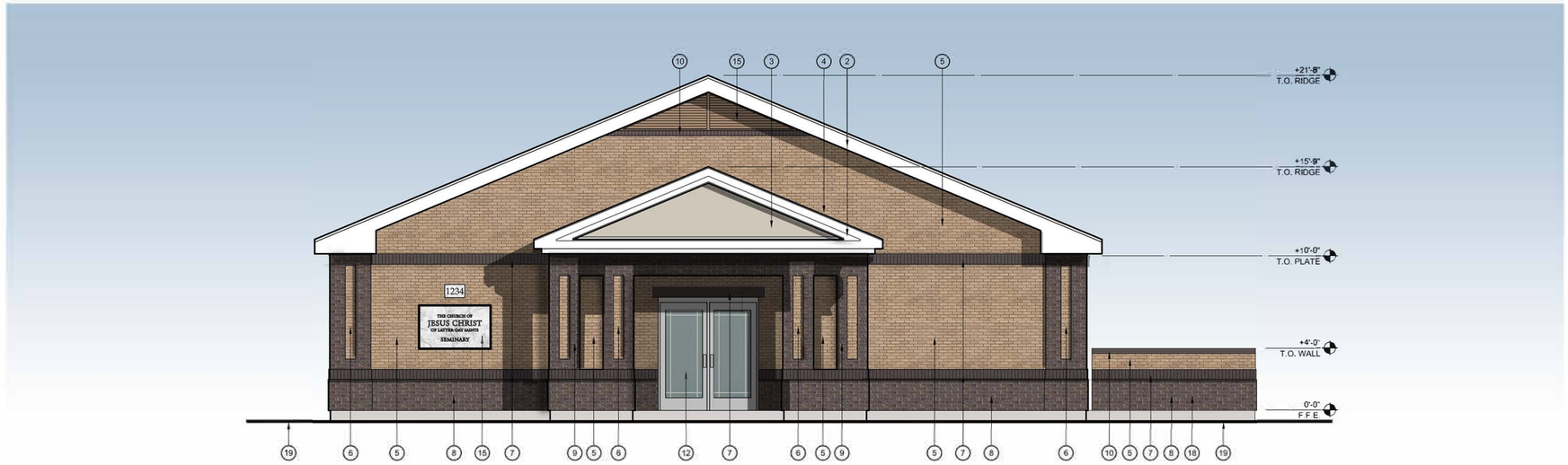
(See Exhibit F for plant pallet and notes)

Sketch Architecture Company

Exhibit H



Conceptual Landscape Plan



L32 EAST EXTERIOR ELEVATION

1/4"=1'-0"

X32 SOUTH EXTERIOR ELEVATION

1/4"=1'-0"

KEYNOTES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
2. PREFINISHED METAL RAKE & FASCIA - "BONE WHITE" HYNAR 5000
3. EXTERIOR INSULATION & FINISH SYSTEM (E.I.F.S. WATER-MANAGED DRAINAGE TYPE) - SENERGY FINISTEXTURE "3068 BIRCH"
4. METAL FLASHING AT ROOF TO WALL - FINISH TO MATCH BRICK COLOR
5. BRICK VENEER RUNNING BOND FIELD - INTERSTATE BRICK "CEDAR"
6. BRICK VENEER STACK BOND ACCENT - INTERSTATE BRICK "CEDAR"
7. BRICK VENEER SOLDIER COURSE - INTERSTATE BRICK "CLIFTON" (LAID WITH SOLID COLOR BRICK REVERSE FACE OUTWARD)
8. BRICK VENEER BASE - INTERSTATE BRICK "CLIFTON"
9. BRICK VENEER PILASTER - INTERSTATE BRICK "CLIFTON"
10. BRICK VENEER ROWLOCK COURSE - INTERSTATE BRICK "CLIFTON" (LAID WITH SOLID COLOR BRICK REVERSE FACE OUTWARD)
11. PRECAST CONCRETE WINDOW SILL
12. PREFINISHED ALUMINUM STOREFRONT DOORS & FRAME - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
13. PREFINISHED ALUMINUM STOREFRONT DOOR, SIDELIGHT & FRAME - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
14. PREFINISHED ALUMINUM STOREFRONT WINDOW - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
16. METAL GABLE VENT WITH FINISH TO MATCH BRICK COLOR
16. STONE BUILDING & ADDRESS SIGNAGE - "BAR GRAY" GRANITE
17. ELECTRICAL SERVICE ENTRANCE SECTION - PRIMED & PAINTED TO MATCH "CEDAR" FIELD BRICK
16. MECHANICAL EQUIPMENT ENCLOSURE
10. FINISH GRADE

Sketch Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph 480.668.8015 fax 480.668.8232

CHANDLER AZ SR SEMINARY
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

REGISTERED ARCHITECT 18899 RANDOLPH L. CARTER Date Signed 7-20-2020 ARIZONA, U.S.A.

SAC Project Number 2020-07

EAST & SOUTH EXTERIOR ELEVATIONS

A201

Exhibit J

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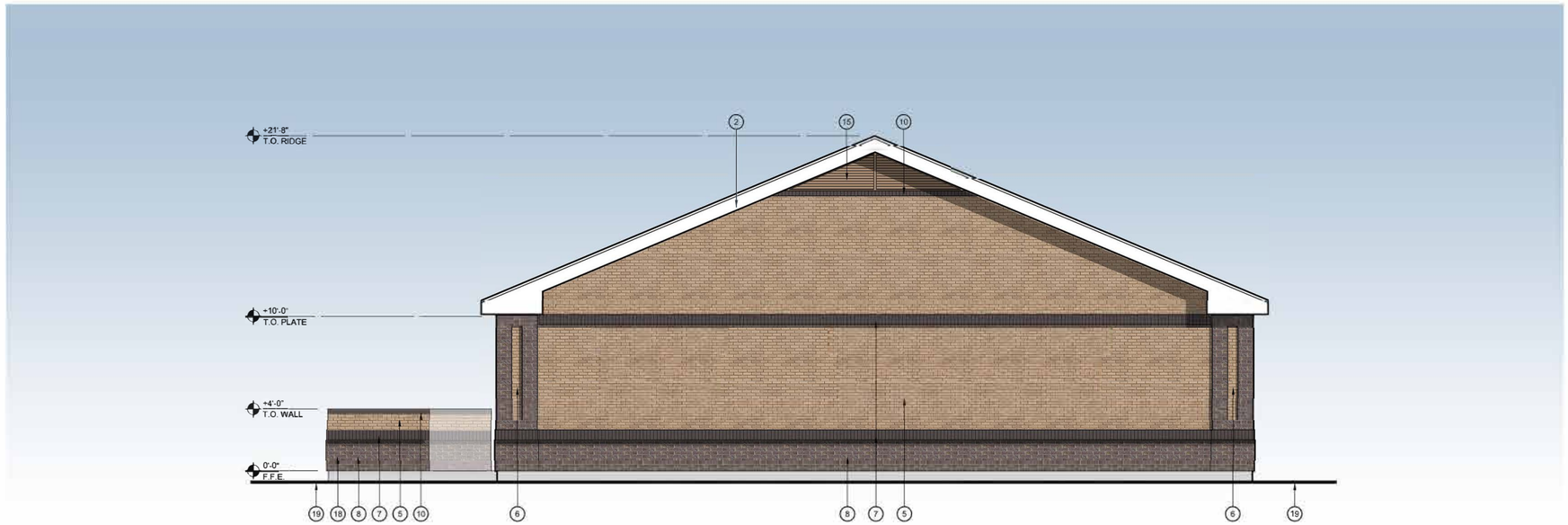

L32 | WEST EXTERIOR ELEVATION

1/4"=1'-0"

X32 | NORTH EXTERIOR ELEVATION

1/4"=1'-0"

KEYNOTES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
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8. BRICK VENEER BASE - INTERSTATE BRICK "CLIFTON"
9. BRICK VENEER PILASTER - INTERSTATE BRICK "CLIFTON"
10. BRICK VENEER ROWLOCK COURSE - INTERSTATE BRICK "CLIFTON" (LAID WITH SOLID COLOR BRICK REVERSE FACE OUTWARD)
11. PRECAST CONCRETE WINDOW SILL
12. PREFINISHED ALUMINUM STOREFRONT DOORS & FRAME - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
13. PREFINISHED ALUMINUM STOREFRONT DOOR, SIDELIGHT & FRAME - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
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Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph 480.668.8015 fax 480.668.8232

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EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

REGISTERED ARCHITECT
CERTIFICATE NO.
15896
RANDOLPH L. CARTER
Date Signed 10-15-2020
ARIZONA, U.S.A.

SAC Project Number
2020-07

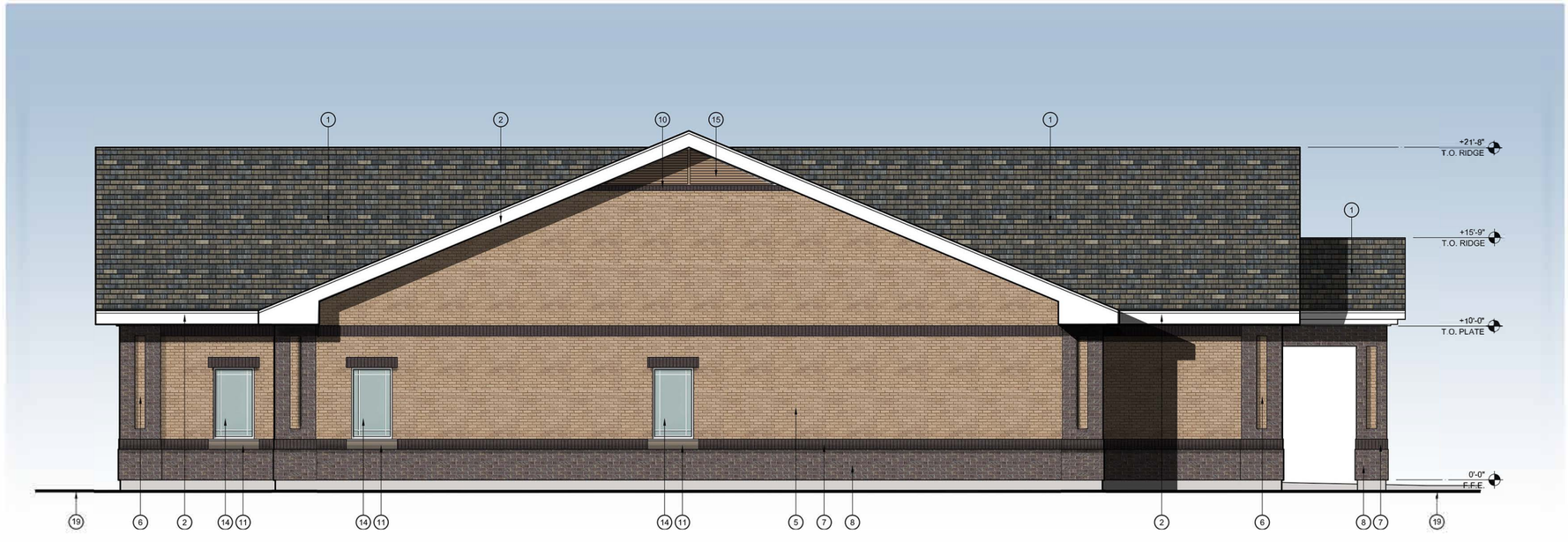
WEST & NORTH EXTERIOR ELEVATIONS

A202

Exhibit K

L32 | EAST EXTERIOR ELEVATION - WITH FUTURE ADDITION

1/4"=1'-0"



X32 | SOUTH EXTERIOR ELEVATION - WITH FUTURE ADDITION

1/4"=1'-0"

KEYNOTES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
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4. METAL FLASHING AT ROOF TO WALL - FINISH TO MATCH BRICK COLOR
5. BRICK VENEER RUNNING BOND FIELD - INTERSTATE BRICK "CEDAR"
6. BRICK VENEER STACK BOND ACCENT - INTERSTATE BRICK "CEDAR"
7. BRICK VENEER SOLDIER COURSE - INTERSTATE BRICK "CLIFTON" (LAID WITH SOLID COLOR BRICK REVERSE FACE OUTWARD)
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13. PREFINISHED ALUMINUM STOREFRONT DOOR, SIDELIGHT & FRAME - "BONE WHITE" HYNAR 5000 & CLEAR DUAL-PANE INSULATED GLAZING
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16. STONE BUILDING & ADDRESS SIGNAGE - "BAR GRAY" GRANITE
17. ELECTRICAL SERVICE ENTRANCE SECTION - PRIMED & PAINTED TO MATCH "CEDAR" FIELD BRICK
18. MECHANICAL EQUIPMENT ENCLOSURE
19. FINISH GRADE

Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph 480.668.8915 fax 480.668.8932

CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7305

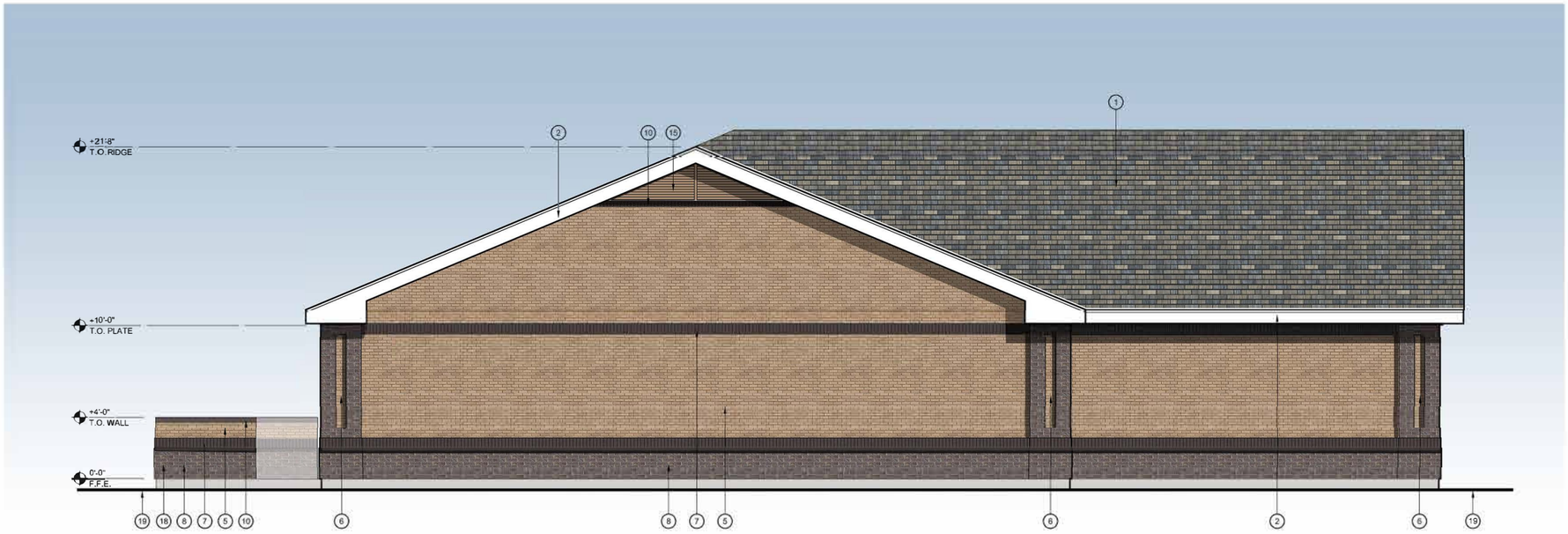
REGISTERED ARCHITECT
18898
RANDOLPH L. CARTER
Date Signed 10-22-2020
ARIZONA, U.S.A.

SAC Project Number
2020-07

EAST & SOUTH EXTERIOR ELEVATIONS - WITH FUTURE ADDITION

A203

Exhibit L



L32 | WEST EXTERIOR ELEVATION WITH FUTURE ADDITION

1/4"=1'-0"

X32 | NORTH EXTERIOR ELEVATION WITH FUTURE ADDITION

1/4"=1'-0"

KEYNOTES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
2. PREFINISHED METAL RAKE & FASCIA - "BONE WHITE" HYNAR 5000
3. EXTERIOR INSULATION & FINISH SYSTEM (E.I.F.S. WATER-MANAGED DRAINAGE TYPE) - SENERGY FINE-TEXTURE "3068 BIRCH"
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18. MECHANICAL EQUIPMENT ENCLOSURE
19. FINISH GRADE

Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph.480.668.8015 fax.480.668.8032

CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 301-7305

REGISTERED ARCHITECT
CERTIFICATE NO.
18898
RANDOLPH L. CARTER
My Commission Expires
ARIZONA, U.S.A.

SAC Project Number
2020-07

WEST & NORTH EXTERIOR ELEVATIONS - WITH FUTURE ADDITION

A204

Exhibit M

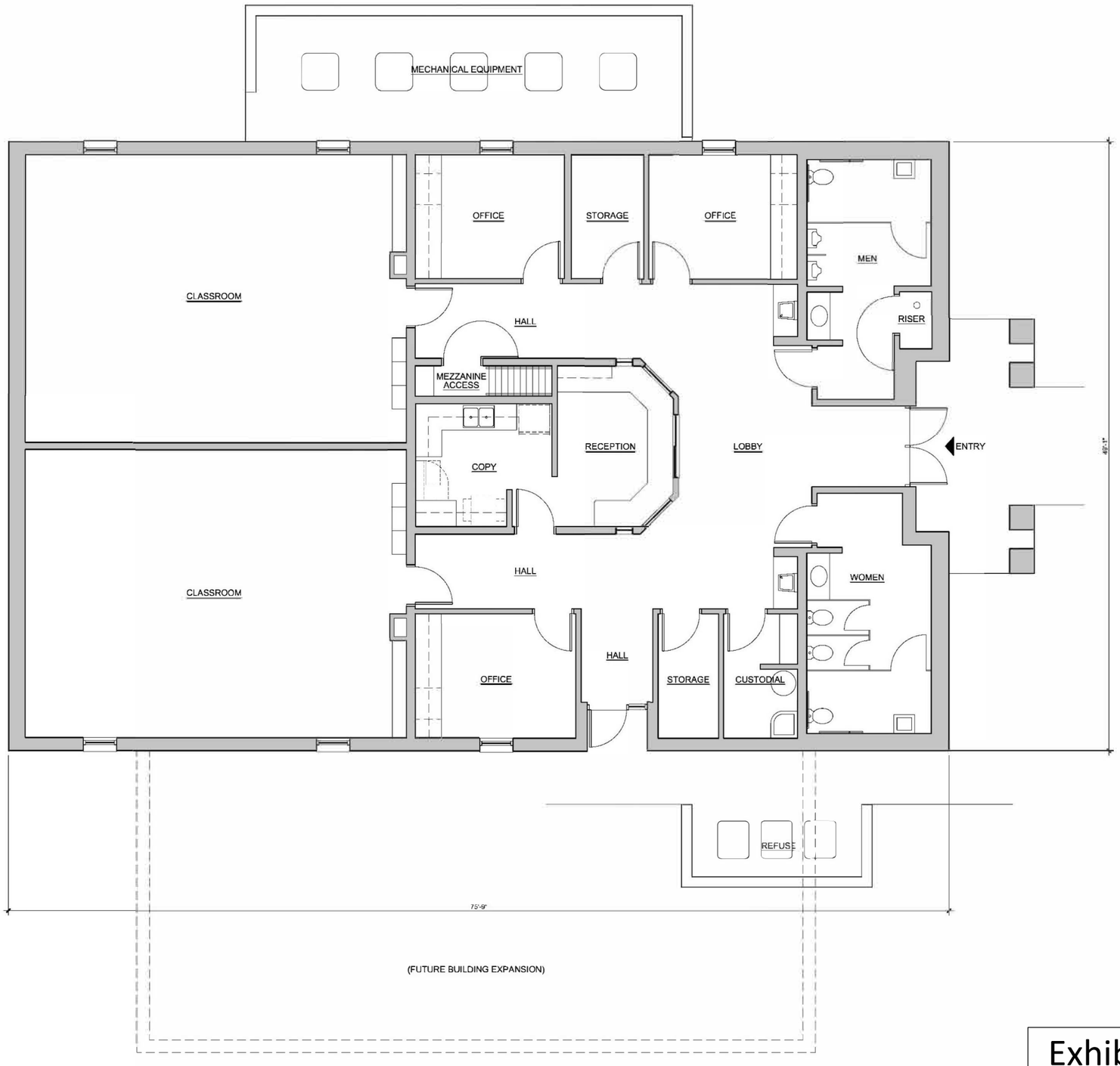


Exhibit N

Sketch Architecture Company

CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7805

PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number 2020-07

FLOOR PLAN

A101

X32 FLOOR PLAN

1/4" = 1'-0"

Exhibit O

N

X32 FLOOR PLAN
1/4" = 1'-0"

sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85204 ph.480.668.8015 fax.480.668.8022

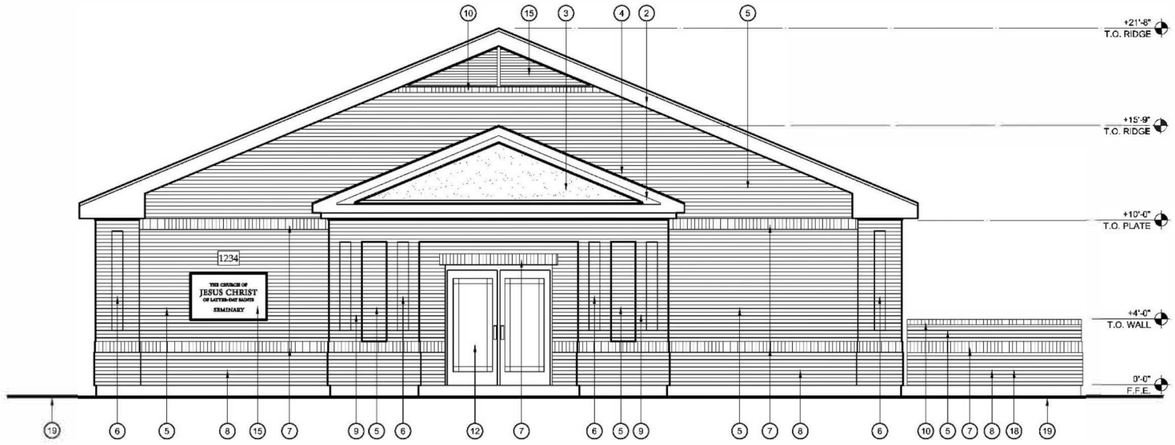
CHANDLER AZ SR SEMINARY
THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS
EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249
LDS PROPERTY NO. 501-7305

PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number
2020-07

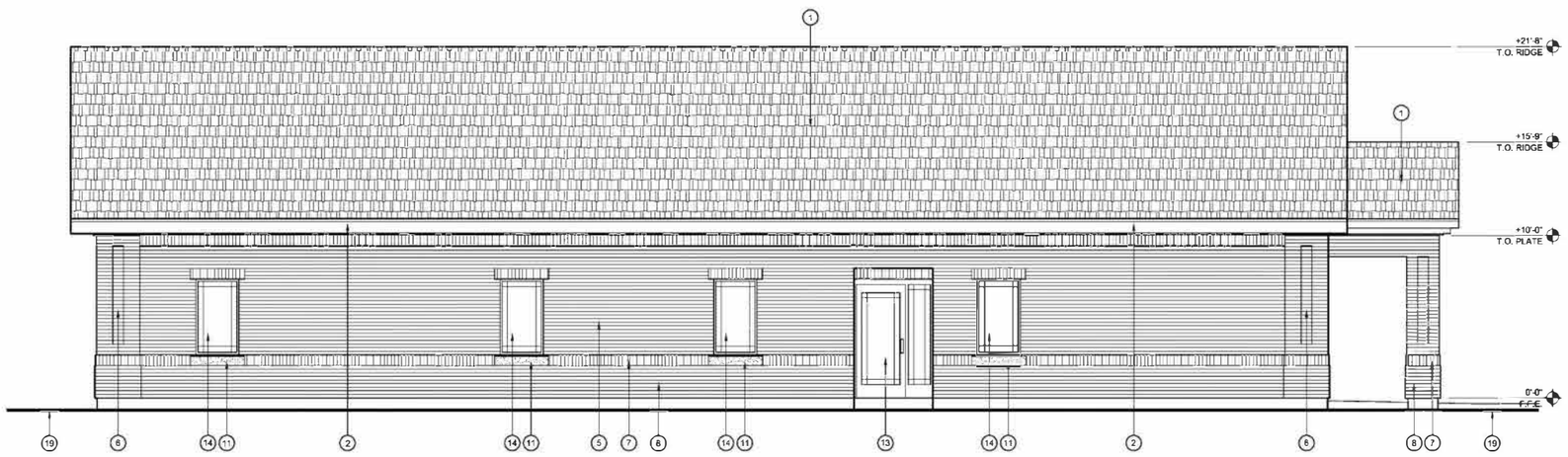
FLOOR PLAN WITH FUTURE ADDITION

A102



L32 EAST EXTERIOR ELEVATION

1/4"=1'-0"



X32 SOUTH EXTERIOR ELEVATION

1/4"=1'-0"

KEYNOTES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
2. PREFINISHED METAL RAKE & FASCIA - "BONE WHITE" HYNAR 5000
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18. MECHANICAL EQUIPMENT ENCLOSURE
19. FINISH GRADE

sketch
Architecture Company
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CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7366

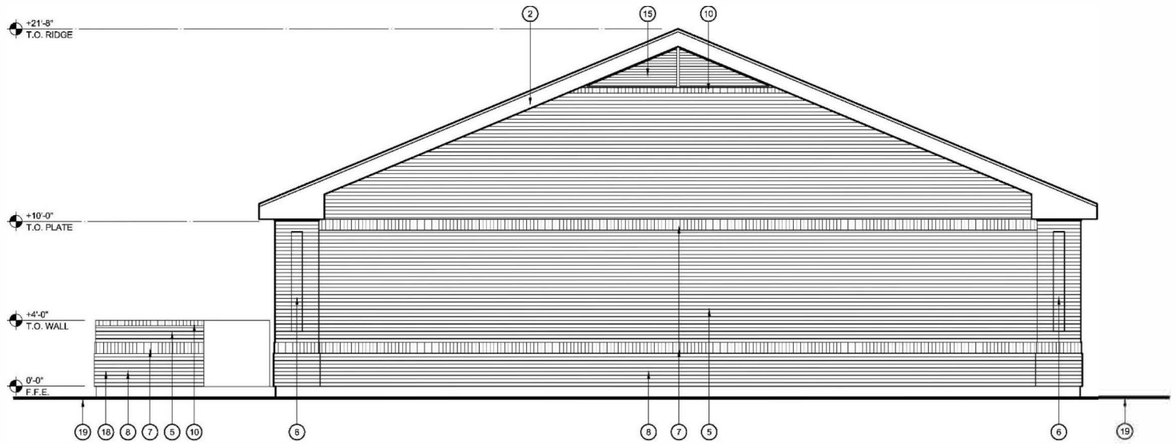
REGISTERED ARCHITECT
PRELIMINARY NOT FOR CONSTRUCTION
ARIZONA, USA

SAC Project Number
2020-07

EAST & SOUTH EXTERIOR ELEVATIONS

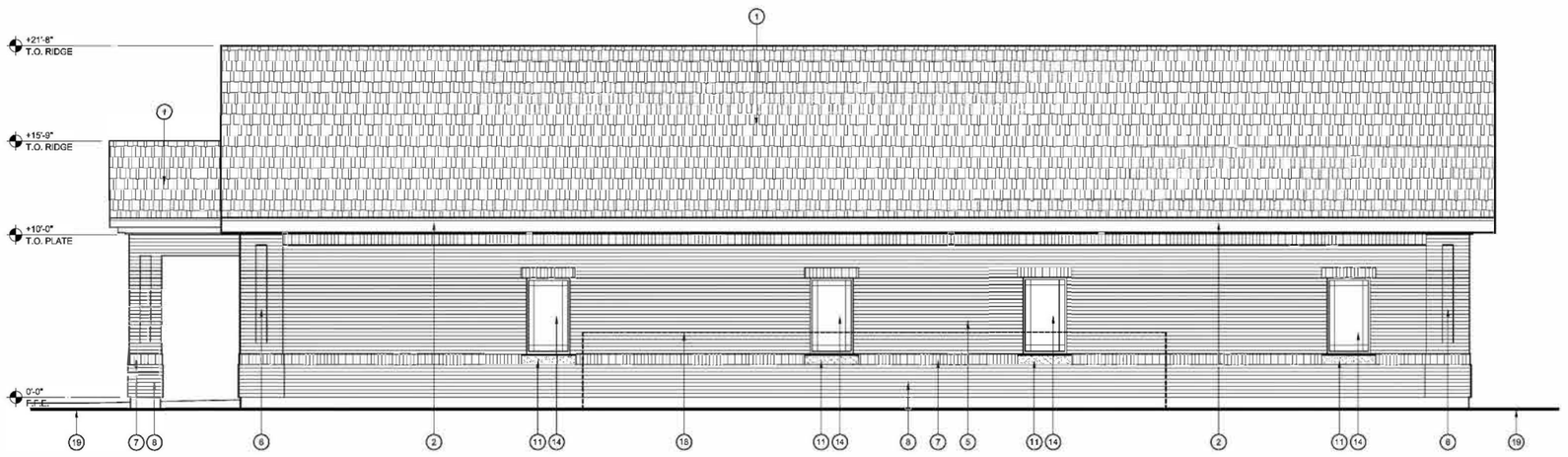
A201

Exhibit P



L32 WEST EXTERIOR ELEVATION

1/4"=1'-0"



X32 NORTH EXTERIOR ELEVATION

1/4"=1'-0"

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sketch Architecture Company
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CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7366

REGISTERED ARCHITECT
KEVIN C. SMITH
ARIZONA, U.S.A.

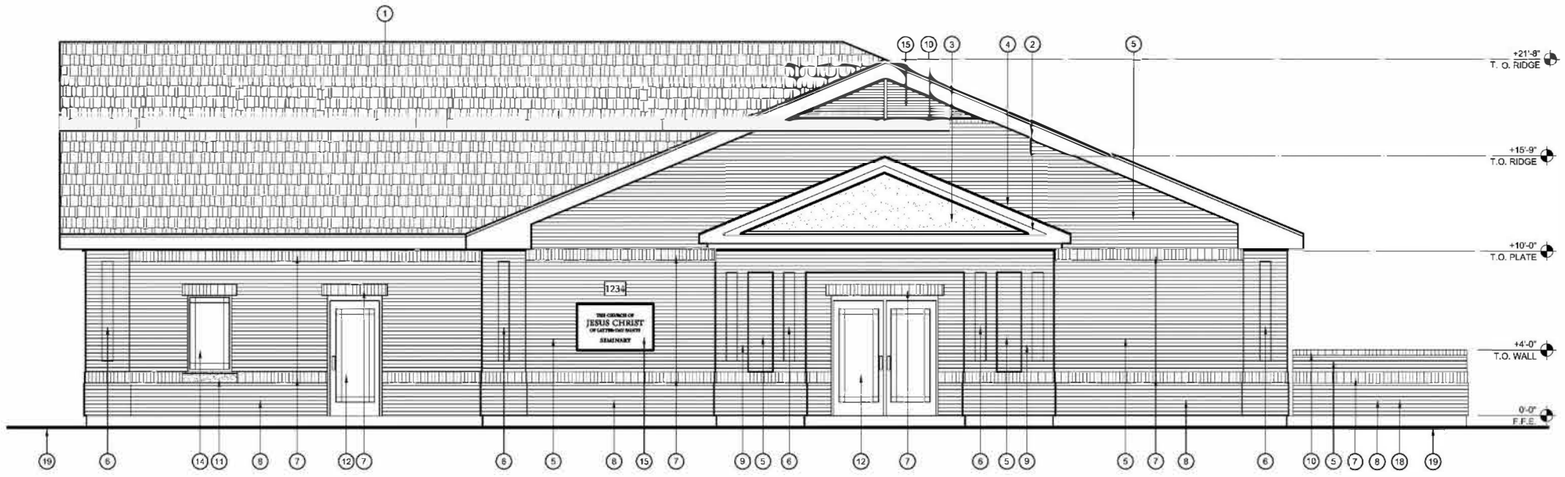
PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number
2020-07

WEST & NORTH EXTERIOR ELEVATIONS

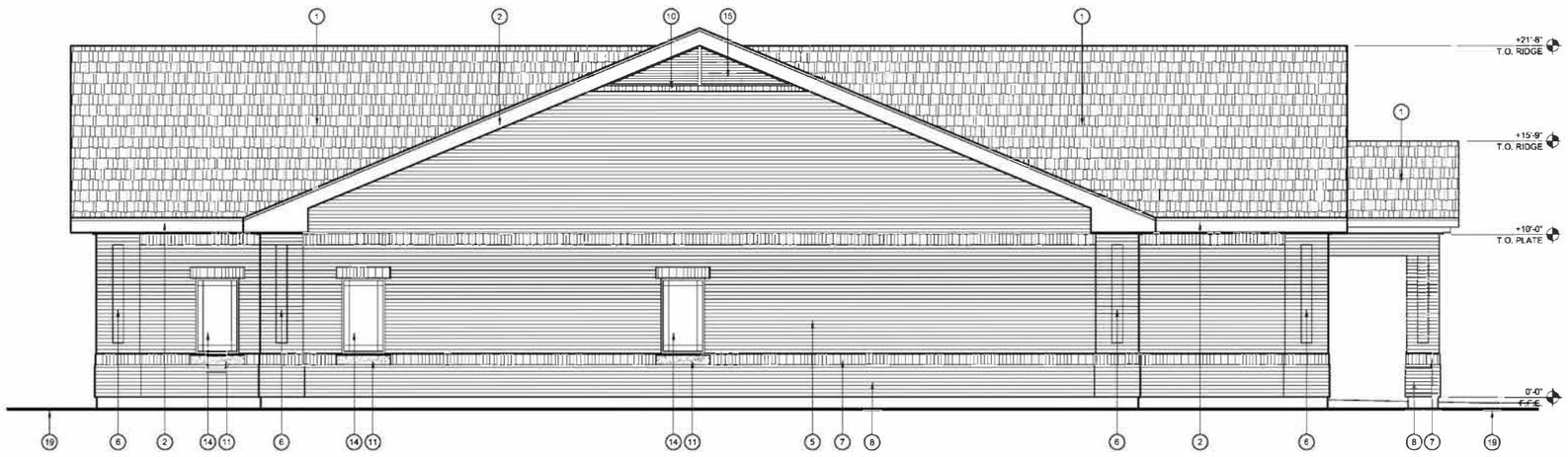
A202

Exhibit Q



L32 EAST EXTERIOR ELEVATION - WITH FUTURE ADDITION

1/4"=1'-0"



X32 SOUTH EXTERIOR ELEVATION - WITH FUTURE ADDITION

1/4"=1'-0"

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sketch
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CHANDLER AZ SR SEMINARY

THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7366

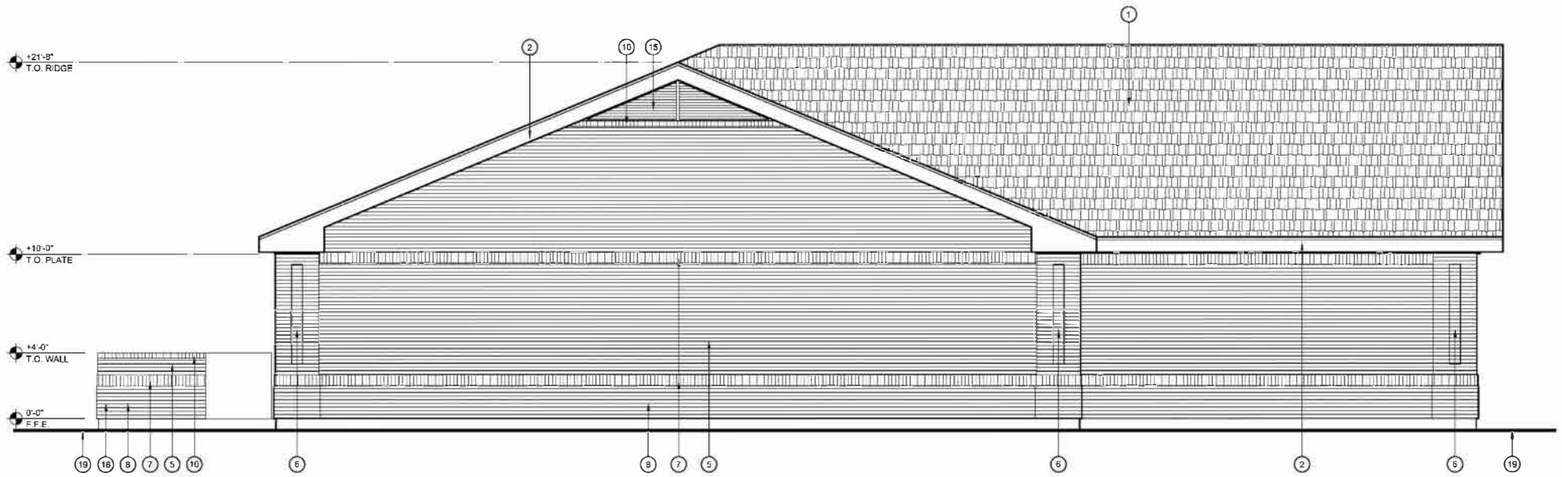
PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number 2020-07

EAST & SOUTH EXTERIOR ELEVATIONS - WITH FUTURE ADDITION

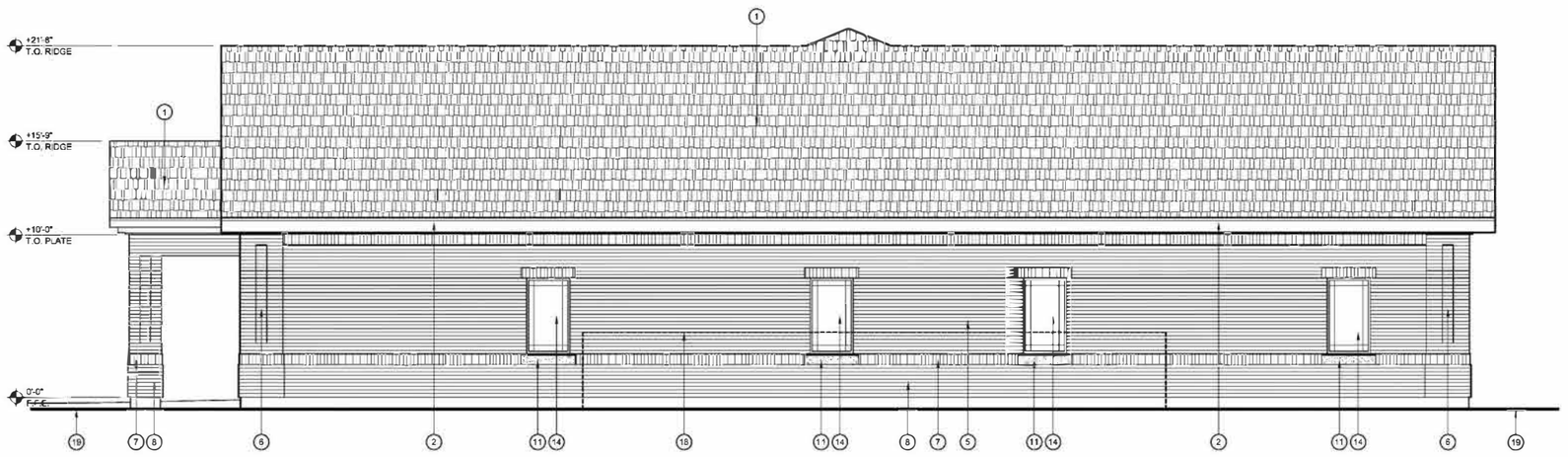
A203

Exhibit R



L32 WEST EXTERIOR ELEVATION WITH FUTURE ADDITION

1/4"=1'0"



X32 NORTH EXTERIOR ELEVATION WITH FUTURE ADDITION

1/4"=1'-0"

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sketch Architecture Company
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CHANDLER AZ SR SEMINARY

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EAST BROOKS FARM ROAD & SOUTH GILBERT ROAD, CHANDLER, ARIZONA 85249

LDS PROPERTY NO. 501-7366

PRELIMINARY NOT FOR CONSTRUCTION

SAC Project Number 2020-07

WEST & NORTH EXTERIOR ELEVATIONS - WITH FUTURE ADDITION

A204

Exhibit S

MATERIALS & FINISHES

1. FLAT CONCRETE TILE ROOFING - EAGLE ROOFING "297 SLATE RANGE"
2. EXTERIOR INSULATION & FINISH SYSTEM (E.I.F.S. WATER-MANAGED DRAINAGE TYPE) - SENERGY FINE-TEXTURE "3068 BIRCH"
3. BRICK VENEER RUNNING BOND FIELD & STACKBOND ACCENTS - INTERSTATE BRICK "CEDAR"
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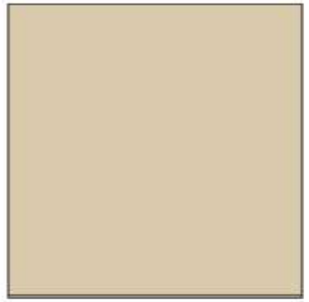
11. STONE BUILDING & ADDRESS SIGNAGE - "BAR GRAY" GRANITE
12. WALL-MOUNTED LIGHT FIXTURE - "BONE WHITE" HYNAR 5000
13. BIKE RACK & REFUSE ENCLOSURE GATES - PRIMED & PAINTED DUNN-EDWARDS DE6042 "BEAR IN MIND"
14. OFFICE REFUSE ENCLOSURE SPLIT-FACE CMU WALLS - PRIMED & PAINTED DUNN-EDWARDS DE6125 "CARVED WOOD"

1



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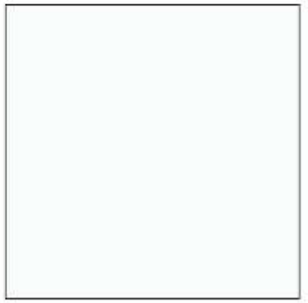


6 7 8 9 10 12

11

13

14

Sketch
Architecture Company
2454 East Southern Avenue, Mesa, Arizona 85205
ph 480.668.8015 fax 480.668.8032

CHANDLER AZ
SR SEMINARY
E. BROOKS FARM RD. & S. GILBERT RD.
CHANDLER, ARIZONA 85249

SAC Project Number:
2020-02

Exhibit T

CHANDLER arizona
Community of Innovation

City Council Memorandum **Development Services Memo No.** 21-011a

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
Derek D. Horn, Development Services Director
From: Susan Fiala, Senior Planner
Subject: PLH20-0023PLT20-0037 Pecos and McQueen Retail
Request: Rezoning from Agricultural District (AG-1) to Planned Area Development (PAD) for Neighborhood Commercial (C-1) uses
Preliminary Development Plan
Preliminary Plat
Location: Southwest corner of Pecos and McQueen roads
Applicant: Reese Anderson, Pew and Lake

Proposed Motion:

Move City Council continue PLH20-0023 Pecos and McQueen Retail, located at the southwest corner of Pecos and McQueen roads, to the March 25, 2021, City Council meeting, as recommended by Planning and Zoning Commission.

Background Data:

At the January 20, 2021, Planning and Zoning Commission meeting, Commission continued the case to their Februrary 17, 2021, meeting for the purpose of holding a Design Review Committee meeting to address concerns regarding the proposed drive-through pads and site plan layout. On February 3, 2021, the Design Review Committee was held and provided design direction to the applicant.

Surrounding Land Use Data:

N/A

Review and Recommendation

Planning and Zoning Commission recommends the City Council continue PLH20-0023/PLT20-0037 Pecos and McQueen Retail to the March 25, 2021, City Council meeting.

Planning and Zoning Commission Vote Report

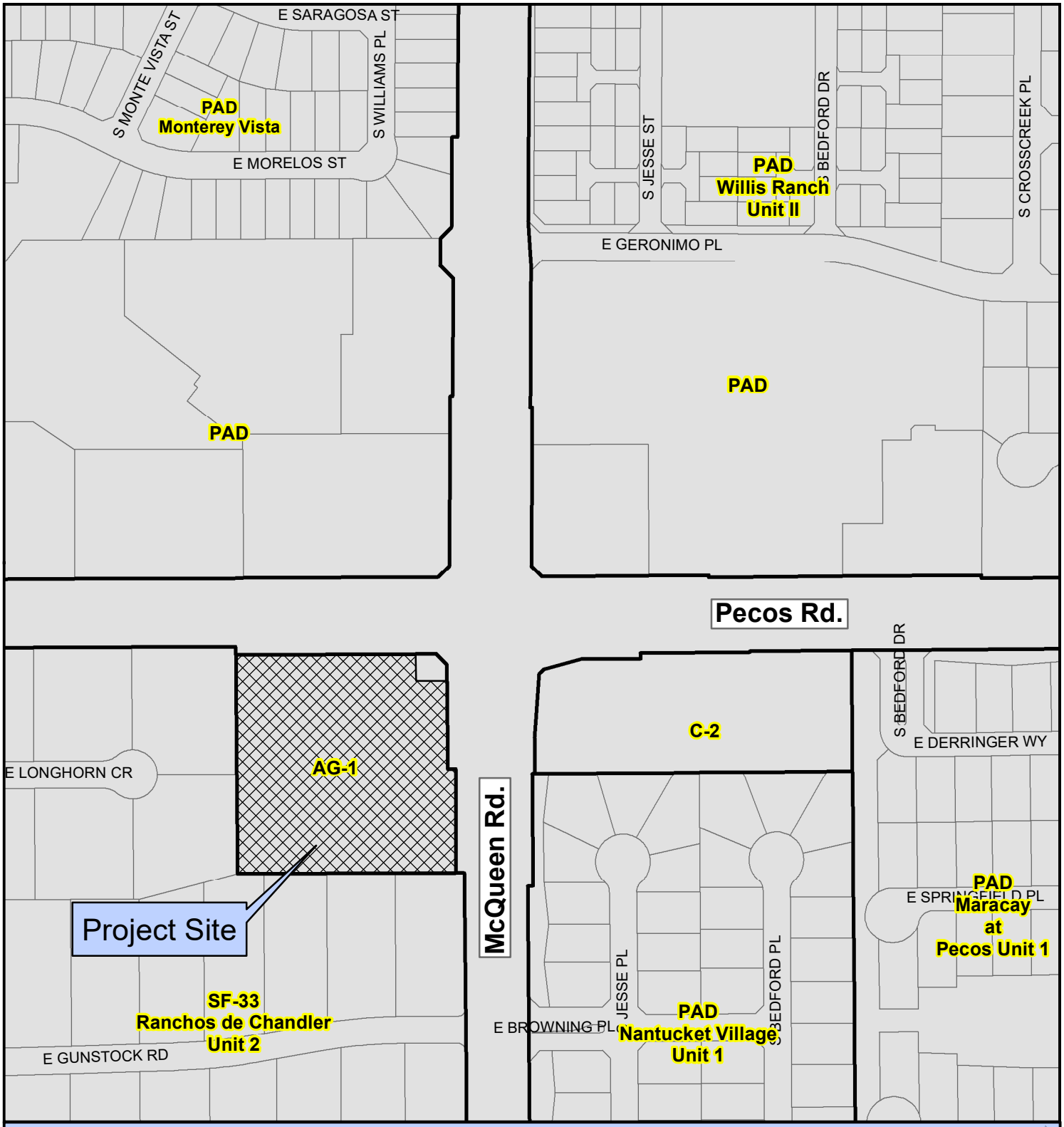
N/A

Recommended Conditions of Approval

N/A

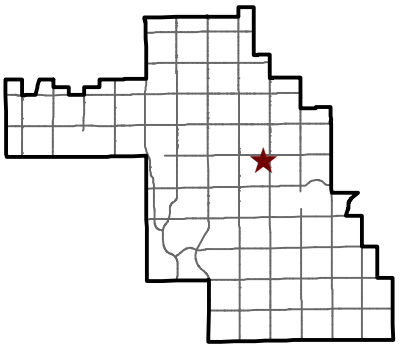
Attachments

Vicinity Maps



PLH20-0023/PLT20-0037 Pecos and McQueen Retail

Proposed Project Details
Rezone/PDP/Pre-Plat
3.5 Acres
Neighborhood Commercial Center

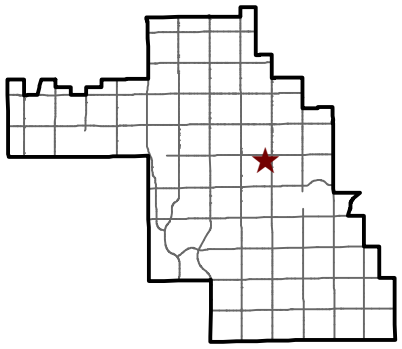


Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

PLH20-0023/PLT20-0037 Pecos and McQueen Retail

Proposed Project Details
Rezone/PDP/Pre-Plat
3.5 Acres
Neighborhood Commercial Center



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City Council Memorandum **Development Services** **Memo No.** DS21-106

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
Derek D. Horn, Development Services Director

From: Louis Kneip, Development Engineering Manager

Subject: Approval of Resolution No. 5439, authorizing a Development Agreement between the City of Chandler and Valley Christian Schools, an Arizona Non-profit Corporation, for the installation of roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street, and approval of Resolution No. 5440, authorizing a Deactivation Agreement between the City of Chandler and Salt River Valley Water User's Association, an Arizona Corporation, for the removal of an irrigation delivery structure to accommodate roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street

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Proposed Motion:

Development Agreement
Move City Council approve Resolution No. 5439, authorizing a Development Agreement between the City of Chandler and Valley Christian Schools, an Arizona Non-profit Corporation, for the installation of roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

Deactivation Agreement
Move City Council approve Resolution No. 5440, authorizing a Deactivation Agreement between the City of Chandler and Salt River Valley Water User's Association, an Arizona Corporation, for the removal of an irrigation delivery structure to accommodate roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street, and authorizing the City Manager or designee to execute other documents as needed to give effect to the agreement.

Background:

Valley Christian Schools (VCS) owns multiple parcels of land in the area of North 56th Street and West Galveston Street, depicted in the attached vicinity map. The existing campus is located at the northeast corner of this intersection. An expansion of the property was authorized in 2010 when the City Council rezoned a portion of the campus from Planned Area Development (PAD) to PAD amended. The rezoning ordinance contained provisions for phasing the campus expansion. Phase one included construction of a temporary softball field south of Galveston Street and a new, two-story classroom building with occupancy limited to the first floor. Phase one has been completed.

VCS is now ready to proceed with phase two, which necessitates several off-site improvements. These improvements include a deceleration lane on northbound 56th Street and the installation of a traffic signal at the intersection of North 56th Street and West Galveston Street. The deceleration lane

construction requires that an existing Salt River Valley Water User's Association (SRP) irrigation structure on the shoulder of North 56th Street be deactivated, removed, and replaced with a concrete manhole structure. VCS is required to pay for and complete all off-site construction costs, including deactivation of the SRP structure, prior to proceeding with the next phase of the campus expansion. SRP is requiring the City of Chandler be obligated to re-activate the irrigation structure in the unlikely event that it is needed in the future to service its shareholders in this area. The City would be reimbursed by VCS for the costs associated with re-activating the structure, should it ever be required. A separate irrigation structure deactivation agreement with SRP has been prepared for Council consideration, which is included in this agenda item.

The Development Agreement between the City of Chandler and VCS contains the following key provisions:

- VCS will construct all required off-site improvements, including the deceleration lane on North 56th Street, the traffic signal, and the deactivation and removal of the SRP irrigation structure.
- VCS will be eligible for partial reimbursement for the traffic signal costs upon future development of the northwest and southwest corners of the intersection of North 56th Street and West Galveston Street.
- VCS will construct a parking lot at the southeast corner of North 56th Street and West Galveston Street.
- The City of Chandler will, subject to Council approval of the separate deactivation agreement, guarantee to restore and reactivate the SRP structure and obtain reimbursement from VCS should irrigation ever be required in this area in the future.
- Upon completion of the above:
    - VCS may complete and occupy the second story of their new classroom building.
    - The temporary modular classrooms will be removed within 45 days of occupancy of the second story.
    - VCS will submit a comprehensive master plan that covers full build-out of the campus.
    - VCS will submit a comprehensive traffic study for the full build-out campus master plan.
    - The Planning division will process the VCS application for rezoning a portion of the campus.

The Deactivation Agreement between the City of Chandler and SRP contains the following key provisions:

- SRP will abandon its use of the irrigation facility.
- The City of Chandler, through a separate agreement, will cause removal of the facility at VCS's sole expense.
- If at any time in the future, SRP determines irrigation is again needed at this location, the City will provide easements and pay all costs for design and construction of a replacement facility.
- SRP will design, construct, own and operate the replacement facility and hold the City harmless for any loss or damage.
- SRP agrees to comply with all City code requirements for all work in the City right of way.

Financial Implications:

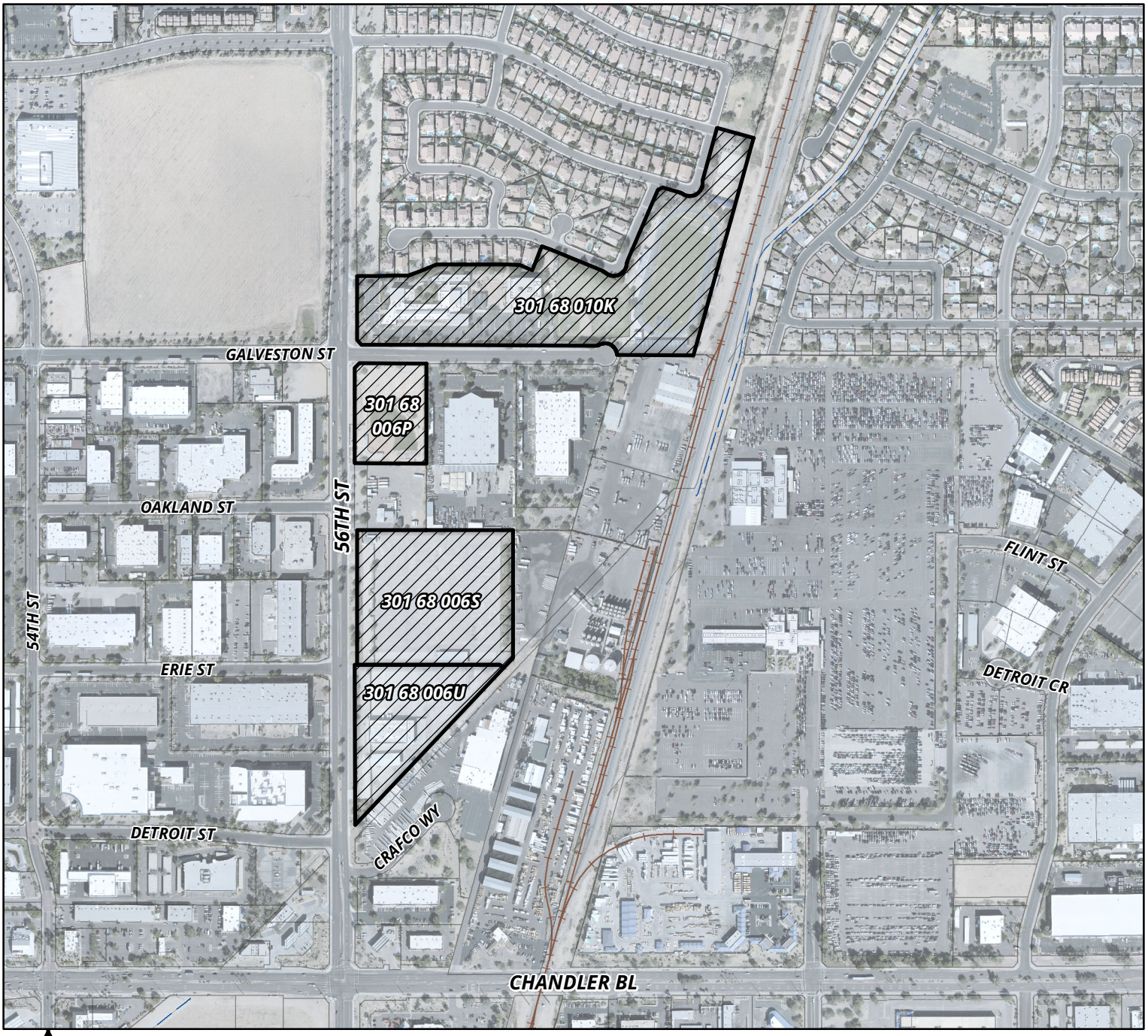
Neither the agreement between the City of Chandler and VCS nor the agreement between the City of Chandler and SRP require any immediate capital expenditures by Chandler. However, by entering into the agreement with SRP, Chandler is guaranteeing to pay for re-activation of the irrigation structure on North 56th Street, should that ever become necessary in the future. Per the Development Agreement with VCS, however, the City of Chandler would be fully reimbursed by VCS for those expenses.

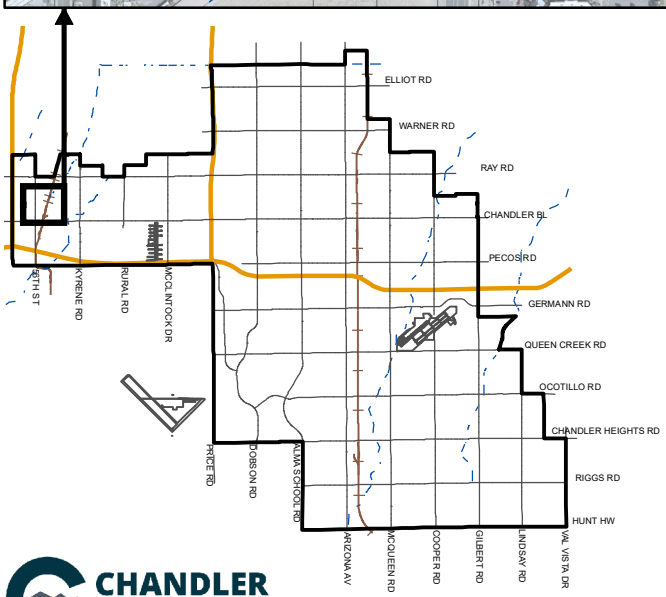
Attachments

DS21-106 map

Resolution No. 5439

Resolution No. 5440
Agreement





VALLEY CHRISTIAN SCHOOL CAMPUS

MEMO NO. DS21-106

VALLEY CHRISTIAN SCHOOLS PARCELS

CHANDLER arizona

NTS

ChanGIS

F:\ENGINEER\GENSERV_ArcMap_Shared\Map Requests\Development Services\DS21-106 VALLEY CHRISTIAN SCHOOL CAMPUS\DS21-106.mxd 2/2/2021 MARICELAH

RESOLUTION NO. 5439

AUTHORIZING A DEVELOPMENT AGREEMENT BETWEEN THE CITY OF CHANDLER AND VALLEY CHRISTIAN SCHOOLS, AN ARIZONA NON-PROFIT CORPORATION FOR THE INSTALLATION OF ROADWAY AND TRAFFIC IMPROVEMENTS AT THE INTERSECTION OF NORTH 56TH STREET AND WEST GALVESTON STREET.

WHEREAS, Valley Christian Schools ("Developer") owns approximately 32.5 acres of property located in the area of North 56th Street and West Galveston Street in the City of Chandler, Arizona as legally described in the attached Exhibit "A" (the "Property"); and

WHEREAS, Developer intends to develop the Property as a K-12 private school campus; and

WHEREAS, City requires Developer to install or contribute to the cost of installing certain offsite public infrastructure improvements necessary to serve the Property as developed, including roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street;

WHEREAS, A.R.S. § 9-500.05 authorizes City and Developer to enter into a development agreement that provides for the conditions, terms, restrictions, and requirements for public infrastructure associated with the proposed development, the financing of public infrastructure, and subsequent reimbursements over time.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. The City of Chandler is authorized to enter into a Development Agreement with Developer in the form attached hereto as Exhibit "B" (the "Agreement").

Section 2. The Mayor is authorized to execute the Agreement and this Resolution on behalf of the City of Chandler.

PASSED AND ADOPTED by the City Council of Chandler, Arizona, this 25th day of February, 2021.

ATTEST:

CITY CLERK

MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5439 was duly passed and adopted by the Chandler City Council at a regular meeting held on the 25th day of February, 2021, at which a quorum was present.

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibit "A"

Legal Description

Legal Description of the Property

The Land referred to herein below is situated in the County of Maricopa, State of Arizona, and is described as follows:

PARCEL NO. 1:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE NORTH 00 DEGREES, 01 MINUTES, 09 SECONDS WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 28, A DISTANCE OF 332.94 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 285.97 FEET;

THENCE NORTH 68 DEGREES, 32 MINUTES, 20 SECONDS EAST, A DISTANCE OF 128.92 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 300.00 FEET;

THENCE SOUTH 88 DEGREES, 15 MINUTES, 07 SECONDS EAST, A DISTANCE OF 55.63 FEET;

THENCE SOUTH 66 DEGREES, 44 MINUTES, 29 SECONDS EAST, A DISTANCE OF 57.28 FEET;

THENCE NORTH 22 DEGREES, 13 MINUTES, 52 SECONDS EAST, A DISTANCE OF 110.93 FEET;

THENCE SOUTH 67 DEGREES, 40 MINUTES, 00 SECONDS EAST, A DISTANCE OF 277.71 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 123 DEGREES, 42 MINUTES, 11 SECONDS, A DISTANCE OF 118.75 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 23 DEGREES, 18 MINUTES, 48 SECONDS EAST, A DISTANCE OF 327.75 FEET;

THENCE NORTH 64 DEGREES, 26 MINUTES, 53 SECONDS EAST, A DISTANCE OF 22.59 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 73.45 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 124 DEGREES, 40 MINUTES, 58 SECONDS, A DISTANCE OF 119.69 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE EASTERLY;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 15 DEGREES, 34 MINUTES, 59 SECONDS EAST, A DISTANCE OF 195.00 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY;

THENCE SOUTH 15 DEGREES, 34 MINUTES, 59 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 931.31 FEET TO A POINT ON THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES, 45 MINUTES, 13 SECONDS WEST, ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1,500.30 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION ACQUIRED BY THE CITY OF CHANDLER BY FINAL ORDER OF CONDEMNATION IN THE SUPERIOR COURT OF THE STATE OF ARIZONA, IN AND FOR THE COUNTY OF MARICOPA, CAUSE NO. C-533606 SEJD, AND RECORDED JUNE 15, 1987, IN RECORDING NO. 87-379832 OF OFFICIAL RECORDS; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES, 48 MINUTES, 13 SECONDS EAST ALONG THE EAST-WEST MIDSECTION LINE, A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE ALONG A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28, NORTH 00 DEGREES, 04 MINUTES, 30 SECONDS EAST, 60.00 FEET;

THENCE SOUTH 44 DEGREES, 51 MINUTES, 32 SECONDS EAST, 28.31 FEET TO A POINT ON A LINE LOCATED 40.00 FEET NORTH OF AND PARALLEL WITH SAID EAST-WEST MIDSECTION LINE OF SECTION 28;

THENCE ALONG SAID LINE SOUTH 89 DEGREES, 48 MINUTES 13 SECONDS EAST, 1,013.03 FEET TO A POINT OF CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT ON SAID EAST-WEST MIDSECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES, 48 MINUTES, 13 SECONDS WEST, 1,119.00 FEET TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO THE CITY OF CHANDLER, A MUNICIPAL CORPORATION BY DEED RECORDED IN RECORDING NO. 91-125093 OF OFFICIAL RECORDS;

AND EXCEPT THE WEST 65 FEET; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 45 MINUTES 13 SECOND EAST ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28, A DISTANCE OF 33.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN DOCUMENT NO. 87-379832, MARICOPA COUNTY RECORDS, SAID ALSO BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 07 MINUTES 03 SECONDS EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 333.16 FEET TO A POINT ON THE SOUTHERLY LINE OF CHANDLER CROSSING UNIT 2, A SUBDIVISION RECORDED IN BOOK 385 OF MAPS, PAGE 3, MARICOPA COUNTY RECORDS;

THENCE NORTH 89 DEGREES 58 MINUTES 51 SECONDS EAST, A DISTANCE OF 25.39 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 273.24 FEET;

THENCE SOUTH 44 DEGREES 53 MINUTES 11 SECONDS EAST, A DISTANCE OF 28.35 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 40.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID NORTH LINE, A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 40.00 FEET TO A POINT ON THE EAST-WEST MID SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 32.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 2:

THE NORTH 467.17 FEET OF THE WEST 361 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTHERLY ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 751.95 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11919, PAGE 1002, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 89 DEGREES 58 MINUTES EAST PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, A DISTANCE OF 980.01 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN SAID INSTRUMENT;

THENCE NORTHEASTERLY ALONG THE WEST RIGHT-OF-WAY LINE OF THE ARIZONA EASTERN RAILROAD, A DISTANCE OF 776.89 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11018, PAGE 676, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE WESTERLY ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 1189.09 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN INSTRUMENT NO. 91-125091, DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG THE EAST-WEST MID-SECTION LINE A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG SAID LINE, A DISTANCE OF 1119.00 FEET;

THENCE ALONG A CURVE TO THE RIGHT, WITH A RADIUS POINT BEARING NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF TANGENCY, SAID POINT LYING ON A LINE 40.00 FEET SOUTH OF AND PARALLEL WITH SAID EAST-WEST MID-SECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, 1012.86 FEET;

THENCE SOUTH 45 DEGREES 08 MINUTES 09 SECONDS WEST, 28.25 FEET TO A POINT ON A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 3 (NORTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 751.95 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG A LINE THAT IS PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 731.11 FEET;

THENCE SOUTH 00 DEGREES 04 MINUTES 37 SECONDS WEST, ALONG A LINE PERPENDICULAR TO THE LAST COURSE, 571.11 FEET TO A POINT ON THE CENTER LINE OF THE KYRENE CANAL;

THENCE SOUTH 43 DEGREES 44 MINUTES 00 SECONDS WEST, ALONG SAID CENTERLINE, 27.31 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 14.22 FEET TO A POINT ON THE NORTH FACE OF AN EXISTING BLOCK WALL;

THENCE NORTH 56 DEGREES 56 MINUTES 33 SECONDS WEST, ALONG SAID NORTH FACE, 27.56 FEET;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, CONTINUING ALONG SAID NORTH FACE AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF, AND PARALLEL WITH, THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG SAID WEST LINE, 575.87 FEET TO THE POINT OF BEGINNING;

EXCEPT THE EAST 10.00 FEET OF THE WEST 65.00 FEET, THEREOF AS CONVEYED TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 95-225841 AND RERECORDED IN DOCUMENT NO. 96-0482329, MARICOPA COUNTY RECORDS.

PARCEL NO. 4 (SOUTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTHWESTERLY OF THE CENTER LINE OF THE WESTERN CANAL.

WHICH INCLUDES THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 1,327.82 FEET TO A POINT WHICH IS 15.00 FEET NORTH OF THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER AND THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG THE NORTH FACE OF AN EXISTING BLOCK WALL AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET;

THENCE SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, CONTINUING ALONG SAID NORTH FACE, 27.56 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 696.47 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 15.00 FEET TO THE POINT OF BEGINNING.

Exhibit "B"

Development Agreement

When recorded, return to:

City Clerk
City of Chandler
P. O. Box 4008, Mail Stop 606
Chandler, AZ 85244-4008

DEVELOPMENT AGREEMENT

between

CITY OF CHANDLER,
an Arizona municipal corporation

and

Valley Christian Schools,
an Arizona non-profit corporation

Approved by the Chandler City Council on February 25, 2021

DEVELOPMENT AGREEMENT

This Development Agreement ("Agreement") is entered into this ____ day of _____, 2021 ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation ("City") and Valley Christian Schools, an Arizona non-profit corporation ("Developer"). City and Developer may be referred to individually in this Agreement as a "Party" and collectively as the "Parties."

RECITALS

A. On or about February 25, 2021, the Chandler City Council approved Resolution No. _____ authorizing the Mayor to enter into this Agreement.

B. The Parties acknowledge that this Agreement constitutes a "Development Agreement" within the meaning of Arizona Revised Statutes § 9-500.05 and in accordance with that statute the Agreement shall be recorded against the interest of Developer in the Property, as described in Recital C below, in the Office of the Maricopa County Recorder to give notice to all persons of its existence and of the Parties' intent that the burdens and benefits contained in this Agreement be binding on and inure to the benefit of the Parties and all of their successors in interest and permitted assigns.

C. Developer owns multiple parcels of real property totaling approximately 32.5 gross acres in the area of North 56th Street and West Galveston Street in the City of Chandler, Maricopa County, Arizona, as legally described in Exhibit "A" to this Agreement (the "Property") and as depicted on the parcel map attached hereto as Exhibit "B". Developer intends to develop the Property as a K-12 private school campus.

D. By Ordinance No. 4244 adopted on July 26, 2010, the Chandler City Council rezoned that portion of the Property identified on Exhibit B as Parcel(s) 1 and 2 from Planned Area Development (PAD) to PAD Amended (DVR09-1003 Valley Christian High School) subject to certain conditions as set forth in that Ordinance, including phased development of the Property (the "Existing Zoning"). Developer has completed Phase One of the approved PAD, including construction of a softball field south of Galveston Street, construction of a new, two-story classroom building (the "New Classroom Building"), and occupancy of only the first floor of the New Classroom Building.

E. Phase Two of the Existing Zoning requires Developer to install certain offsite public infrastructure improvements necessary to serve the Property, including a northbound right-turn deceleration lane on 56th Street and the installation of a traffic signal at the intersection of 56th Street and Galveston Street.

F. Installation of the deceleration lane and traffic signal requires deactivation and removal of an existing Salt River Project (SRP) irrigation structure located at the

southeast corner of Galveston and 56th Street consisting of an irrigation box and related improvements (the "Irrigation Structure") under terms and conditions prescribed by SRP, including a deactivation agreement between City and SRP obligating City to restore the Irrigation Structure in the event that SRP requires the Irrigation Structure to fulfill SRP's obligation to deliver irrigation water to its shareholders in the area.

G. In 2000 City granted Developer a Use Permit authorizing Developer to install modular buildings on a portion of the Property located at the northeast corner of North 56th Street and West Galveston Street and identified on Exhibit B as Parcel 1. The Use Permit has expired pending Developer's application to extend it, currently on file with the City's Planning Division as case number PLH19-0065.

H. Developer also has applied to the City for rezoning of a portion of the Property located on the east side of 56th Street approximately 700 feet south of Galveston Street and identified on Exhibit B as Parcels 3 and 4 from Planned Area Development (PAD) for industrial uses to PAD for a private elementary and junior high school campus. The rezoning of Parcels 3 and 4 is pending with the City's Planning Division as case number PLH20-0040.

I. City and Developer agree that a comprehensive master plan for full development and build-out of the Property will serve the interests of students and the public by allowing Developer to complete the phased development of the Property, including associated public infrastructure improvements, as enrollment increases over time.

AGREEMENT

NOW, THERFORE, the Parties agree as follows:

ARTICLE 1. COMPLETION OF PHASE TWO OF EXISTING ZONING

Developer shall complete development of the Property under the Existing Zoning as set forth in this Article 1.

1.1 Installation of Roadway and Traffic Improvements.

(a) Developer agrees to perform or cause to be performed all of the work associated with the installation of a right-turn deceleration lane northbound on 56th Street south of Galveston Street and a traffic signal at 56th Street and Galveston Street as generally depicted in Exhibit "C" (the "Roadway and Traffic Improvements"). All work must be designed and completed in accordance with plans and specifications approved by the City of Chandler. Developer agrees to pay all costs required to complete installation of the Roadway and Traffic Improvements ("Construction Costs"). Construction Costs shall include, but are not limited to, fees needed to acquire temporary construction easements or similar permissions, design, engineering, bonding, construction, installation, inspection,

energization, and as-built mapping, including any and all costs associated with the deactivation of the Irrigation Structure located at the southeast corner of Galveston Street and 56th Street. Construction Costs shall also include any cost increases due to changes, additions, or deletions that are discovered during construction and that are associated with the Roadway and Traffic Improvements, as reasonably determined and approved by the City Engineer.

(b) The Parties anticipate that adequate right-of-way exists to accommodate all improvements associated with installation of the Roadway and Traffic Improvements. However, in the event that additional right-of-way is required, City agrees to acquire same at Developer's cost. Further, in the event that Developer is unable through the exercise of reasonable diligence to reach agreement with a neighboring property owner concerning acquisition of temporary construction easements or similar permissions needed to complete installation of the Roadway and Traffic Improvements, City agrees to acquire same at Developer's cost.

(c) City will acquire ownership of the Roadway and Traffic Improvements when completed, approved, and accepted by the City Engineer in accordance with Chandler City Code Section 47-8 ("Acceptance"). Following Acceptance, City shall assume full responsibility for all maintenance and power costs, other than replacement or repair covered under the one-year warranty for workmanship, materials and equipment as set forth in Code Section 47-8.

(d) Within one year after Acceptance, City and Developer shall enter into an Agreement for Reimbursement of Offsite Construction Costs in substantially the form attached hereto as Exhibit "D" (the "Reimbursement Agreement"). Under the Reimbursement Agreement, Developer shall be entitled to reimbursement as the remaining undeveloped corners of the 56th Street and Galveston Street intersection develop, in an amount not to exceed one-half of the Construction Costs, less the cost of the northbound deceleration lane on 56th Street.

(e) Should Developer be adjudged bankrupt or make an assignment for the benefit of creditors prior to the completion of the construction of the work to be performed under the terms of this Agreement, all rights under the reimbursement provisions hereof, if any, will be null and void and without force or effect, and facilities constructed prior to bankruptcy become the property of the City in fee simple, free and clear of any and all encumbrances, claims or liens whatsoever of Developer.

1.2 Deactivation of SRP Irrigation Structure.

(a) The Parties acknowledge that installation of the Roadway and Traffic Improvements requires deactivation and may require removal of the Irrigation Structure under terms and conditions prescribed by SRP, including, but not limited to, a deactivation agreement between City and SRP obligating City to restore the Irrigation Structure in the

event that SRP requires the Irrigation Structure to fulfill SRP's obligation to deliver irrigation water to its shareholders in the area.

(b) Concurrently with entering into this Agreement, City shall enter into a deactivation agreement with SRP in substantially the form attached hereto as Exhibit "E" (the "Deactivation Agreement").

(c) Developer agrees that, in the event that SRP requires City to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, Developer shall reimburse City for 100% of the Construction Costs (as defined in Section 1.1(a) of this Agreement) that City incurs in completing the restoration of the SRP Irrigation Structure under the terms of the Deactivation Agreement.

(d) In the event that SRP requires City to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, City shall inform Developer in writing at the addresses provided for Notice under this Agreement promptly following City's receipt of notice from SRP regarding the same. Thereafter, Developer may elect to communicate directly with SRP regarding the need, scope and other terms and conditions related to the completion of restoration of the SRP Irrigation Structure; however, City shall be included in any communications between Developer and SRP.

(e) At any time after completing its obligation to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, City may make written demand on Developer for payment of Construction Costs incurred by City under the Deactivation Agreement, and Developer shall remit same to City within 90 days thereafter Such demand from the City shall include, without limitation, invoices from contractors providing labor or materials to the restoration project and such other information and materials as Developer may reasonably request.

(f) Developer's failure to remit payment under Section 1.2(e) of this Agreement shall constitute a breach of this Agreement entitling City to any and all available legal and equitable remedies, including interest accruing at the legal statutory rate from the date of demand until the date of payment in full of all amounts due and owing, including accrued interest.

(g) Developer shall be responsible for any and all Construction Costs (as defined in Section 1.1(a) of this Agreement) associated with the removal of the SRP irrigation structure, subject to the provisions for reimbursement set forth in Section 1.1(d) of this Agreement.

1.3 Improvement of Parking Lot.

Concurrently with its completion of the traffic signal under Section 1.1 of this Agreement, Developer shall complete paving and other improvements to the parking lot

located at the southeast corner of 56th Street and Galveston Street. Developer shall submit design plans for the parking lot improvements to City for approval and shall otherwise comply with permit and design requirements as set forth in City Code.

1.4 Continued Use of Modular Buildings.

Four modular buildings (2 office occupancy and 2 classroom occupancy) currently exist on the Property in the locations noted on Exhibit B (the "Modular Buildings"). The Parties agree that Developer may continue the current use of the Modular Buildings until the date that is forty-five (45) days following the date that Developer satisfies all requirements for and City issues a Certificate of Occupancy for the second floor of the New Classroom Building, but in no event shall the use continue beyond June 30, 2022. Notwithstanding the foregoing, the Parties recognize that unforeseen and unforeseeable circumstances may impede Developer's ability to complete the improvements required under Sections 1.1 and 1.3 of this Agreement. Provided that the City Manager is satisfied that Developer is proceeding with completion of the improvements required under Sections 1.1 and 1.3 of this Agreement in a commercially reasonable manner and Developer has otherwise performed all necessary work to obtain a certificate of occupancy save the completion of the improvements required under Sections 1.1 and 1.3 of this Agreement, Developer may request and the Development Services Director may approve an extension of the June 30, 2022 deadline set forth above.

1.5 Certificate of Occupancy for Second Floor of Permanent Classroom Building.

Notwithstanding Developer's compliance with the occupancy requirements of the City's Building Code, City shall not issue a Certificate of Occupancy for the Second Floor of the New Classroom Building until Developer completes and City accepts or approves the improvements required under Sections 1.1 and 1.3 of this Agreement.

ARTICLE 2. COMPREHENSIVE MASTER PLAN FOR FULL CAMPUS BUILD-OUT

2.1 The Parties agree that City shall take no further action on Case No. PLH20-0040 or any future rezoning proposed for Parcels 3 and 4 until such time as Developer has completed Phase Two of the Existing Zoning, including, but not limited to, the provisions set forth in Article 1 of this Agreement.

2.2 Developer shall submit a comprehensive campus master plan that covers full build-out of the planned K-12 private school campus, including a comprehensive traffic study covering full build-out, in connection with the current or any future rezoning proposed for Parcels 3 and 4.

2.3 City shall take no further action on the current or any future rezoning proposed for Parcels 3 and 4 until Developer has fully performed and satisfied the provisions of Article 1 and Article 2 of this Agreement.

ARTICLE 3. INDEMNIFICATION AND INSURANCE

3.1 The following terms shall have the following meanings in this Article:

"Hazardous Substances" means any materials or pollutants which pose a hazard to the Property or to the Roadway and Traffic Improvements, or to persons on or about the same, or cause the Property or the Roadway and Traffic Improvements to be in violation of any law or local approval ("Environmental Law"), including any provision of Title 49 of the Arizona Revised Statutes or are defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," or "toxic" or words of similar import under any applicable law or regulation.

"Release": Any releasing, spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, disposing, or dumping.

3.2 Developer agrees to indemnify, defend and hold harmless, on demand, the City, its successors and assigns, its elected and appointed officials, employees, agents, boards, commissions, representatives, and attorneys, for, from and against any and all liabilities, obligations, damages, charges and expenses, penalties, suits, fines, claims, legal and investigation fees or costs, arising from or related to any claim or action for injury, liability, breach of warranty or representation, or damage to persons, property or the environment, and any and all claims or actions brought by any person, entity or governmental body (collectively, "Claims"), which Claims allege or arise in connection with contamination of, or adverse effects on, human health, property or the environment pursuant to any Environmental Law, the common law, or other statute, ordinance, rule, regulation, judgment or order of any governmental agency or judicial entity, and which are incurred or assessed because of, as a result of, or in connection with, whether in part or in whole, the performance of their respective obligations hereunder in connection with: (i) the respective acts, errors or omissions of Developer, and their respective owners, affiliated entities, agents, successors, assigns, officers, directors, or employees, (ii) any property dedicated to the City from them pursuant to this Agreement, or (iii) any Release or threat of Release of a Hazardous Substance into the environment by Developer or its employees or contractors in connection with this Agreement and/or the Property. This indemnification includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial actions, removal or restoration work required or conducted by any federal, state, county, or local governmental agency or political subdivision. The Parties agree that the City's right to enforce this covenant to indemnify is not an adequate remedy at law for a violation of any provision of this Agreement by Developer and that the City shall have the rights set forth in this paragraph in addition to all other rights and remedies provided by law or otherwise provided for in this Agreement.

3.3 Without limiting the foregoing, Developer shall promptly take all actions at its sole cost and expense as are necessary to mitigate any immediate threat to human health

or the environment by the presence of Hazardous Substances arising out of or resulting from Developer's performance hereunder. Developer shall undertake such actions without regard to the potential legal liability of any other person; however, any remedial activities by Developer shall not be construed as to impair Developer's rights, if any, to seek contribution or indemnity from another person.

3.4 Developer agrees to indemnify, defend, and hold harmless the City and its officers, officials, agents, and employees for, from and against any and all Claims for personal injury (including death) or property damage caused, or alleged to be caused, by the respective negligent or willful acts, errors, or omissions of Developer, and those of Developer's respective directors, officers, members, managers, agents, successors, assigns, or employees, arising out of or resulting from this Agreement. The preceding indemnity obligation includes any Claim or amount arising under the worker's compensation laws, Environmental Laws, or arising out of the failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, court decree, or for any breach or violation of this Agreement. For the consideration of this Agreement, Developer agrees to waive all rights of subrogation against the City for losses arising from or related to this Agreement.

3.5 Developer Insurance Requirements.

3.5.1 Generally. Developer must procure insurance, as more fully described below. Developer must maintain the insurance until Final Acceptance (as defined in Chandler City Code Section 47-8) of the Roadway and Traffic Improvements. The insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. City in no way warrants that the minimum limits stated in this section are sufficient to protect Developer from liabilities that might arise out of this Agreement. Developer is free to purchase such additional insurance as may be determined necessary.

3.5.2 Minimum Scope and Limits of Insurance. Developer must provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a "following form" basis.

Commercial General Liability – Occurrence Form:

This policy must include bodily injury, property damage, broad form contractual liability coverage.

General Aggregate	$4,000,000
Products – Completed Operations Aggregate	$2,000,000
Personal and Advertising Injury	$2,000,000
Each Occurrence	$2,000,000

This policy must be endorsed to include the following additional insured language: "The City of Chandler is named as an additional insured with respect to liability arising out of the activities performed by Developer."

Worker's Compensation and Employers' Liability:

Workers' Compensation	Statutory Employers' Liability
Each Accident	$100,000
Disease – Each Employee	$100,000
Disease – Policy Limit	$500,000

This policy must contain a waiver of subrogation against the City.

3.5.3 Consultant and Contractor Insurance Requirements. The Parties acknowledge that form agreements for the Roadway and Traffic Signal Improvements shall require each contractor and consultant to maintain insurance for coverages and amounts as reasonably approved by Developer and City.

ARTICLE 4. STANDARD TERMS AND CONDITIONS

4.1 Notices. Except as otherwise required by law, any notice, demand or other communication required to be given by this Agreement (each, a "Notice") shall be in writing and shall be given by (i) personal delivery; (ii) by certified or registered United States Mail, return receipt requested or by United States Priority Mail; or (iii) by any nationally recognized express or overnight delivery service (e.g., Federal Express or UPS), with all postage and other delivery charges prepaid and addressed to the Parties at their respective addresses set forth below, or at such other address as a Party may designate in writing pursuant to the terms of this paragraph:

To Developer: Dan Kuiper, Head of School
Valley Christian Schools
6900 W. Galveston St.
Chandler, AZ 85226
P: (480) 705-8888 ext. 203
Email: dkuiper@valleychristianaz.org

With copy to: Wendy Riddell
Berry Riddell, LLC
6750 E. Camelback Road, Suite 100
Scottsdale, AZ 85251

To City: Development Services Director
City of Chandler
215 E. Buffalo Street
Chandler, AZ 85225
(480) 782-3410

With copy to: Chandler City Attorney
175 S. Arizona Avenue, Second Floor
Chandler, AZ 85225
(480) 782-4640

4.2 Effective Date of Notices. Regardless of delivery method, any Notice will be deemed effective upon actual delivery or refusal to accept delivery by the addressee. Notwithstanding the foregoing, no payment shall be deemed to be made until actually received in good and available funds by the intended payee. The Parties hereby acknowledge and agree that any Notice transmitted solely by facsimile or by electronic mail shall be deemed ineffective.

4.3 Cooperation; Further Acts. The Parties agree to cooperate with each other consistent with this Agreement, as reasonably necessary to facilitate the design and construction of the Roadway and Traffic Improvements in accordance with the terms of this Agreement. In furtherance of the foregoing, each of the Parties hereto shall execute and deliver all such documents and perform all such acts as reasonably necessary, from time to time, to carry out the matters contemplated by this Agreement.

4.4 Compliance with City Code and Design Standards. Other than as expressly provided in this Agreement or by laws of general application, Developer shall comply with all applicable requirements for submission and approval of a preliminary and final plat and site plan under Chapter 48 of the Chandler City Code, shall obtain appropriate City permits for all work that it intends to undertake on the Property, and shall perform such work in compliance with applicable Chandler City Code requirements and technical design manuals.

4.5 Default. Subject to the limitations set forth in this Agreement, in the event of a default by a Party of the terms of this Agreement, the non-defaulting Party shall have all remedies available to it at law or in equity, including, without limitation, specific performance of any obligation created under this Agreement and the issuance of an injunction; provided, however, each Party waives any right to seek recovery of, or recover, any special, consequential, punitive, or other monetary damages of any kind, other than actual damages.

4.6 Venue; Attorneys' Fees. Any legal actions instituted pursuant to this Agreement must be filed in the County of Maricopa, State of Arizona, or in the Federal District Court in the District of Arizona. In any legal action, the prevailing party in such

action will be entitled to reimbursement by the other Party for all reasonable costs and expenses of such action, including reasonable attorneys' fees as may be fixed by the court.

4.7 Conflicts of Interest. No member, official or employee of the City may have any direct or indirect interest in this Agreement, nor participate in any decision relating to the Agreement which is prohibited by law. All Parties hereto acknowledge that this Agreement is subject to cancellation pursuant to the provisions of Arizona Revised Statutes § 38-511.

4.8 No Partnership; Third Parties. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any owner-contractor, contractor-contractor, employer-employee, partnership, or joint venture relationship between or among any or all of the Parties hereto. No term or provision of this Agreement is intended to, or shall, be for the benefit of any person, firm, organization or corporation not a party hereto, and no such other person, firm, organization or corporation shall have any right or cause of action hereunder.

4.9 Entire Agreement. This Agreement constitutes the entire agreement between the Parties hereto pertaining to the subject matter hereof. All prior and contemporaneous agreements, representations and understandings of the Parties, oral or written, are hereby superseded and merged herein. No change or addition is to be made to this Agreement except by written amendment executed by the Parties hereto.

4.10 Governing Law. This Agreement is entered into in Arizona and shall be construed and interpreted under the laws of the State of Arizona.

4.11 Severability. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be valid under applicable law, but if any provision of this Agreement shall be conclusively determined to be invalid or unenforceable to any extent, such provision shall be ineffective to the extent of such invalidation or unenforceability, but such determination shall not invalidate the remainder of such provision or the remaining provisions of this Agreement.

4.12 Calculation of Days. As used herein, the term "business day" shall mean a day that is not a Saturday, Sunday or legal holiday in the City of Chandler. If the last day of any time period stated in this Agreement or the date on which any obligation to be performed under this Agreement shall fall on a Saturday, Sunday or legal holiday in the State of Arizona, then the duration of such time period or the date of performance, as applicable, shall be extended so that it shall end on the next succeeding day which is not a Saturday, Sunday or legal holiday in the State of Arizona.

4.13 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The signature pages from one or more

counterparts may be removed from such counterparts and such signature pages all attached to a single instrument so that the signatures of all Parties may be physically attached to a single document.

4.14 Recitals; Exhibits. The Recitals of this Agreement are incorporated herein by reference and form a part of this Agreement. The Parties agree that all references to this Agreement include all Exhibits designated in and attached to this Agreement, such Exhibits being incorporated into and made an integral part of this Agreement for all purposes.

4.15 Time of Essence. Time is of the essence of this Agreement and each provision of this Agreement.

4.16 Recordation; Full Release of Property. The City will cause this Agreement to be recorded in its entirety in the Official Records of Maricopa County, Arizona, not later than 15 days after execution of the Agreement by the Parties, and shall thereafter promptly provide a recorded copy of this Agreement to Developer. This Agreement shall run with the land, shall bind Developer's successors and assigns, and shall not be released unless and until SRP terminates the Deactivation Agreement or otherwise releases City from any further obligation under the Deactivation Agreement.

4.17 Warranty Against Payment of Consideration for Agreement. Developer warrants that it has not paid or given, and will not pay or give, any third person any money or other consideration for obtaining this Agreement, other than normal costs of conducting business and costs of professional services such as architects, consultants, engineers, and attorneys.

4.18 Non-liability of City Officials and Employees. No member, official or employee of the City will be personally liable to Developer, or any successor in interest, in the event of any default or breach by the City or for any amount which may become due to Developer or its successor, or on any obligation under the terms of this Agreement.

4.19 Authority to Execute. The person signing this Agreement on behalf of Developer represents and warrants that they have the necessary authorization to enter into this Agreement on behalf of the corporation and to bind the corporation to the terms and conditions of this Agreement.

4.20 No Waiver. Except as otherwise expressly provided in this Agreement, any failure or delay by any Party in asserting any of its rights or remedies as to any default, will not operate as a waiver of any default, or of any such rights or remedies, or deprive any such Party of its right to institute and maintain any actions or proceedings which it may deem necessary to protect, assert, or enforce any such rights or remedies, including but not limited to rights and remedies existing at common law.

4.21 Captions. The captions contained in this Agreement are merely a reference and are not to be used to construe or limit the text.

4.22 No Agency Created. Nothing contained in this Agreement creates any partnership, joint venture, or agency relationship among the City or Developer. No term or provision of this Agreement is intended to be for the benefit of any person, firm, organization, or corporation not a Party hereto, and no other person, firm, organization, or corporation may have any right or cause of action hereunder.

4.23 Governing Statutes. References are made in this Agreement to specific sections of the Arizona Revised Statutes. Any such references mean the statute in effect on the date of the execution of this Agreement and any subsequent renumbering or reordering of those provisions.

4.24 No Israel Boycott. By entering into this contract, Developer certifies that Developer is not currently engaged in, and agrees for the duration of the contract to not engage in, a boycott of Israel.

[Signatures on following page.]

IN WITNESS WHEREOF, City has caused this Agreement to be duly executed in its name and on its behalf by its Mayor and its seal to be hereunder duly affixed and attested by its City Clerk, and Developer has signed the same, on or as of the day and year first above written.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

City Clerk

Mayor

APPROVED AS TO FORM:

Assistant City Attorney

VALLEY CHRISTIAN SCHOOLS, an Arizona nonprofit corporation

By: Dan Kuipers
Its: Head of School

STATE OF ARIZONA)
) ss.
County of Maricopa)

Subscribed and sworn to before me this 9 day of February 2021, by Dan Kuipa, in his or her capacity as Head of School of Valley Christian Schools, an Arizona nonprofit corporation.

Tina Kidd
Notary Public

My Commission Expires: 6/17/22

TINA KIDD
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
COMMISSION #546873
MY COMMISSION EXPIRES
JUNE 17, 2022

EXHIBIT "A"

Legal Description of the Property

Legal Description of the Property

The Land referred to herein below is situated in the County of Maricopa, State of Arizona, and is described as follows:

PARCEL NO. 1:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE NORTH 00 DEGREES, 01 MINUTES, 09 SECONDS WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 28, A DISTANCE OF 332.94 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 285.97 FEET;

THENCE NORTH 68 DEGREES, 32 MINUTES, 20 SECONDS EAST, A DISTANCE OF 128.92 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 300.00 FEET;

THENCE SOUTH 88 DEGREES, 15 MINUTES, 07 SECONDS EAST, A DISTANCE OF 55.63 FEET;

THENCE SOUTH 66 DEGREES, 44 MINUTES, 29 SECONDS EAST, A DISTANCE OF 57.28 FEET;

THENCE NORTH 22 DEGREES, 13 MINUTES, 52 SECONDS EAST, A DISTANCE OF 110.93 FEET;

THENCE SOUTH 67 DEGREES, 40 MINUTES, 00 SECONDS EAST, A DISTANCE OF 277.71 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 123 DEGREES, 42 MINUTES, 11 SECONDS, A DISTANCE OF 118.75 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 23 DEGREES, 18 MINUTES, 48 SECONDS EAST, A DISTANCE OF 327.75 FEET;

THENCE NORTH 64 DEGREES, 26 MINUTES, 53 SECONDS EAST, A DISTANCE OF 22.59 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 73.45 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 124 DEGREES, 40 MINUTES, 58 SECONDS, A DISTANCE OF 119.69 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE EASTERLY;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 15 DEGREES, 34 MINUTES, 59 SECONDS EAST, A DISTANCE OF 195.00 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY;

THENCE SOUTH 15 DEGREES, 34 MINUTES, 59 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 931.31 FEET TO A POINT ON THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES, 45 MINUTES, 13 SECONDS WEST, ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1,500.30 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION ACQUIRED BY THE CITY OF CHANDLER BY FINAL ORDER OF CONDEMNATION IN THE SUPERIOR COURT OF THE STATE OF ARIZONA, IN AND FOR THE COUNTY OF MARICOPA, CAUSE NO. C-533606 SEJD, AND RECORDED JUNE 15, 1987, IN RECORDING NO. 87-379832 OF OFFICIAL RECORDS; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES, 48 MINUTES, 13 SECONDS EAST ALONG THE EAST-WEST MIDSECTION LINE, A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE ALONG A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28, NORTH 00 DEGREES, 04 MINUTES, 30 SECONDS EAST, 60.00 FEET;

THENCE SOUTH 44 DEGREES, 51 MINUTES, 32 SECONDS EAST, 28.31 FEET TO A POINT ON A LINE LOCATED 40.00 FEET NORTH OF AND PARALLEL WITH SAID EAST-WEST MIDSECTION LINE OF SECTION 28;

THENCE ALONG SAID LINE SOUTH 89 DEGREES, 48 MINUTES 13 SECONDS EAST, 1,013.03 FEET TO A POINT OF CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT ON SAID EAST-WEST MIDSECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES, 48 MINUTES, 13 SECONDS WEST, 1,119.00 FEET TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO THE CITY OF CHANDLER, A MUNICIPAL CORPORATION BY DEED RECORDED IN RECORDING NO. 91-125093 OF OFFICIAL RECORDS;

AND EXCEPT THE WEST 65 FEET; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 45 MINUTES 13 SECOND EAST ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28, A DISTANCE OF 33.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN DOCUMENT NO. 87-379832, MARICOPA COUNTY RECORDS, SAID ALSO BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 07 MINUTES 03 SECONDS EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 333.16 FEET TO A POINT ON THE SOUTHERLY LINE OF CHANDLER CROSSING UNIT 2, A SUBDIVISION RECORDED IN BOOK 385 OF MAPS, PAGE 3, MARICOPA COUNTY RECORDS;

THENCE NORTH 89 DEGREES 58 MINUTES 51 SECONDS EAST, A DISTANCE OF 25.39 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 273.24 FEET;

THENCE SOUTH 44 DEGREES 53 MINUTES 11 SECONDS EAST, A DISTANCE OF 28.35 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 40.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID NORTH LINE, A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 40.00 FEET TO A POINT ON THE EAST-WEST MID SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 32.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 2:

THE NORTH 467.17 FEET OF THE WEST 361 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTHERLY ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 751.95 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11919, PAGE 1002, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 89 DEGREES 58 MINUTES EAST PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, A DISTANCE OF 980.01 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN SAID INSTRUMENT;

THENCE NORTHEASTERLY ALONG THE WEST RIGHT-OF-WAY LINE OF THE ARIZONA EASTERN RAILROAD, A DISTANCE OF 776.89 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11018, PAGE 676, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE WESTERLY ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 1189.09 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN INSTRUMENT NO. 91-125091, DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG THE EAST-WEST MID-SECTION LINE A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG SAID LINE, A DISTANCE OF 1119.00 FEET;

THENCE ALONG A CURVE TO THE RIGHT, WITH A RADIUS POINT BEARING NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF TANGENCY, SAID POINT LYING ON A LINE 40.00 FEET SOUTH OF AND PARALLEL WITH SAID EAST-WEST MID-SECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, 1012.86 FEET;

THENCE SOUTH 45 DEGREES 08 MINUTES 09 SECONDS WEST, 28.25 FEET TO A POINT ON A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 3 (NORTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 751.95 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG A LINE THAT IS PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 731.11 FEET;

THENCE SOUTH 00 DEGREES 04 MINUTES 37 SECONDS WEST, ALONG A LINE PERPENDICULAR TO THE LAST COURSE, 571.11 FEET TO A POINT ON THE CENTER LINE OF THE KYRENE CANAL;

THENCE SOUTH 43 DEGREES 44 MINUTES 00 SECONDS WEST, ALONG SAID CENTERLINE, 27.31 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 14.22 FEET TO A POINT ON THE NORTH FACE OF AN EXISTING BLOCK WALL;

THENCE NORTH 56 DEGREES 56 MINUTES 33 SECONDS WEST, ALONG SAID NORTH FACE, 27.56 FEET;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, CONTINUING ALONG SAID NORTH FACE AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF, AND PARALLEL WITH, THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG SAID WEST LINE, 575.87 FEET TO THE POINT OF BEGINNING;

EXCEPT THE EAST 10.00 FEET OF THE WEST 65.00 FEET, THEREOF AS CONVEYED TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 95-225841 AND RERECORDED IN DOCUMENT NO. 96-0482329, MARICOPA COUNTY RECORDS.

PARCEL NO. 4 (SOUTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTHWESTERLY OF THE CENTER LINE OF THE WESTERN CANAL.

WHICH INCLUDES THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 1,327.82 FEET TO A POINT WHICH IS 15.00 FEET NORTH OF THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER AND THE POINT OF BEGINNING;

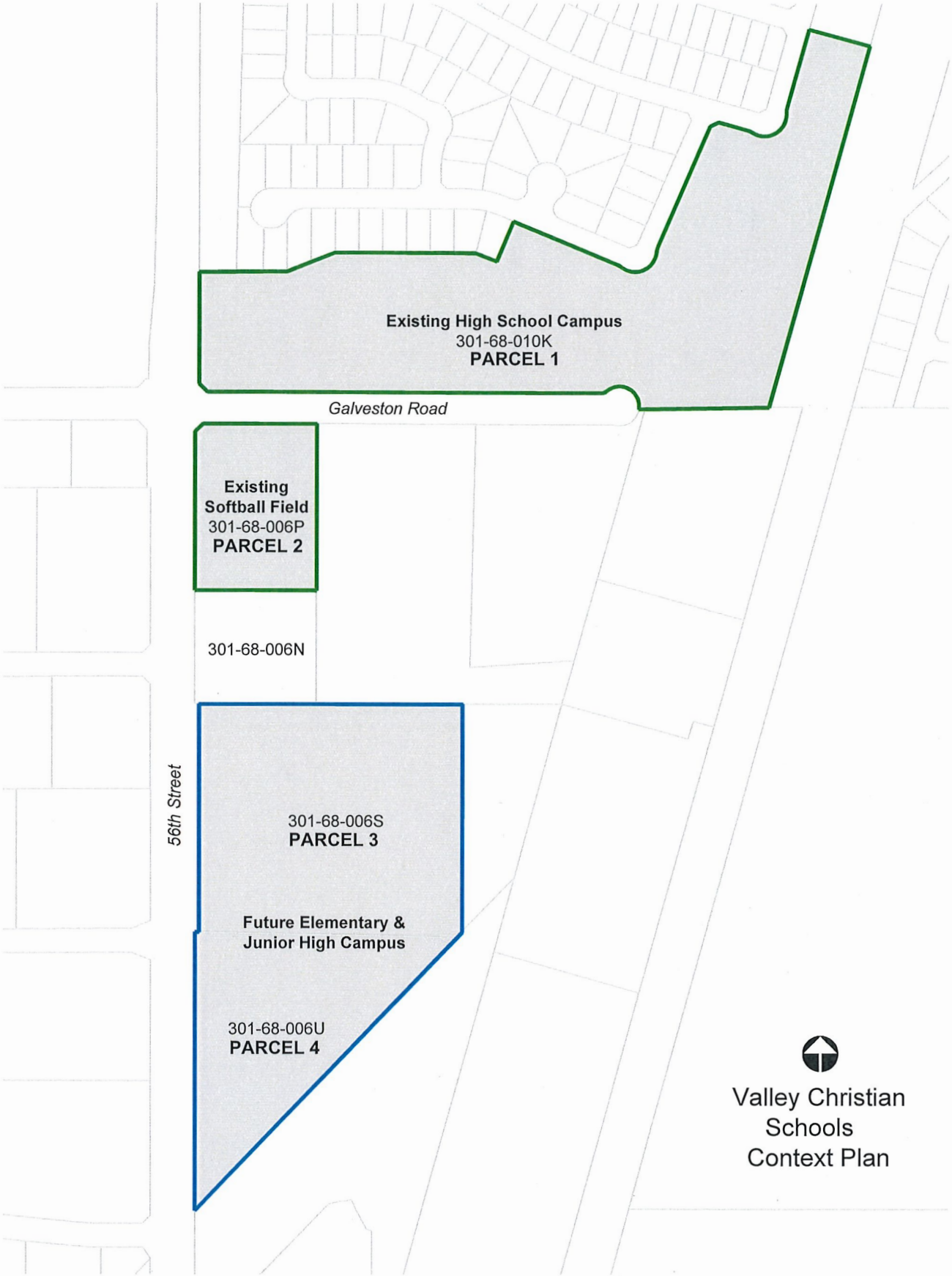
THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG THE NORTH FACE OF AN EXISTING BLOCK WALL AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET;

THENCE SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, CONTINUING ALONG SAID NORTH FACE, 27.56 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 696.47 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 15.00 FEET TO THE POINT OF BEGINNING.

EXHIBIT "B"
Parcel Map



Valley Christian
Schools
Context Plan

EXHIBIT "C"

Roadway and Traffic Improvements

Copyright RVi

Aerial Photography Date

RVi

VALLEY CHRISTIAN • **Intersection Exhibit**

- CHANDLER, ARIZONA
- 2020-12-08
- # 18003081
- VALLEY CHRISTIAN SCHOOLS

0 10' 20' 40'
SCALE: 1" = 20'-0"

For illustrative purposes only. Subject to change without notice.

EXHIBIT "D"

Reimbursement Agreement

When recorded, mail to:

City Clerk
City Of Chandler
P. O. Box 4008 MS 606
Chandler, Arizona 85244-4008

AGREEMENT FOR REIMBURSEMENT OF OFFSITE IMPROVEMENT COSTS
(Agreement No. _____)

This Agreement for Reimbursement of Offsite Improvement Costs ("Agreement") is made and entered into this ____ day of _____, 20___ ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation ("City") and Valley Christian Schools, an Arizona non-profit corporation ("Developer").

RECITALS

A. When the value of offsite improvements constructed by a developer exceeds the developer's obligation, Chandler City Code Sections 47-11 (deferral of off-site improvements) and 47-15 (traffic signals) authorize the City Engineer to enter into a reimbursement agreement to provide for recovery of costs from others who develop later within the Reimbursement Area.

B. Developer has constructed offsite improvements required by City in connection with development of the real property described in Exhibit "A". City issued Acceptance (as defined under Chandler City Code Section 47-8) of Developer's offsite improvements on _____.

C. The offsite improvements constructed by Developer also benefit the real property described in Exhibit "B" ("Reimbursement Area"). City has determined that Developer is eligible for reimbursement by future developers within the Reimbursement Area who will benefit from the offsite improvements constructed by Developer.

D. Developer desires to enter into an agreement with City for reimbursement of costs incurred by Developer for the construction of offsite improvements the value of

which exceeds the Developer's offsite improvement obligation.

NOW, THEREFORE, City and Developer agree as follows:

1. The improvements eligible for reimbursement are described as follows ("Covered Improvements"):

1/2 of traffic signal at the intersection of North 56th Street and West Galveston Street.

2. Developer's entitlement to reimbursement expires 15 years from the Effective Date of this Agreement.

3. Developer shall inform City of Developer's current address and any changes in ownership of Developer for the entire term of this Agreement. Developer's failure to perform under this Paragraph 3 shall automatically void Developer's eligibility for reimbursement under this Agreement and all facilities constructed shall be the property of City in fee simple, free and clear of any and all encumbrances, claims, or liens whatsoever.

4. Should Developer be adjudged bankrupt or make an assignment for the benefit of creditors at any time during the term of this Agreement, this Agreement shall become null and void and all facilities constructed shall be the property of City in fee simple, free and clear of any and all encumbrances, claims, or liens whatsoever.

5. City shall assess property located within the Reimbursement Area a proportionate share of the cost of the Covered Improvements as determined by the City Engineer or his designee. City shall remit assessments collected from property located in the Reimbursement Area to Developer less (a) $100.00 per transaction, which shall be retained by City to cover its costs of administering this Agreement, and (b) subject to the reimbursement provisions of Article 1 of the Development Agreement between the City of Chandler and Valley Christian Schools dated _____.

7. Within 30 days after satisfactory payment of buy-in fees from any third party under this Agreement, City shall record a Satisfaction and Release in substantially the form attached as Exhibit "C".

8. Developer may assign its rights under this Agreement upon providing written notification of the assignee's name and address to City at the address set forth below, only if Developer assigns concurrently its rights and obligations under the Development Agreement. Upon assignment, assignee shall assume all rights and responsibilities of

Developer under this Agreement, including the obligation to inform City of current address and ownership under Paragraph 3 above.

9. City may retain any assessments collected under this Agreement if Developer or any assignee fails to satisfy any term of this Agreement. In addition, City may retain any assessments collected under this Agreement following assignment of Developer's right to reimbursement under this Agreement to City as contemplated in the Development Agreement.

10. Following the expiration of this Agreement, City may make and retain assessments for the off-site improvements identified in Paragraph 1 above.

11. Subject to written notice of change of address or ownership under Paragraph 3 above, all notices, demands or other communication given under this Agreement shall be in writing and sent to the following via certified, first-class U.S. Mail, return receipt required:

To Developer: Dan Kuiper, Head of Schools
Valley Christian Schools
6900 W. Galveston St.
Chandler, AZ 85226

With a copy to: Wendy Riddell
Berry Riddell, LLC
6750 E. Camelback Road, Suite 100
Scottsdale, AZ 85251

To City: Development Services Director
City of Chandler
215 E. Buffalo Street
Chandler, AZ 85225

With a copy to: Chandler City Attorney
175 S. Arizona Avenue, Second Floor
Chandler, AZ 85225

12. This Agreement is subject to the provisions of A.R.S. § 38-511.

[Signatures on Following Page]

IN WITNESS WHEREOF, City and Developer have executed this Agreement through their representatives duly authorized to execute this Agreement and to bind their respective entities to its terms and obligations.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

_____
City Clerk

By_____
Derek Horn
Development Services Director
Date signed:_____

APPROVED AS TO FORM:

_____
Assistant City Attorney

VALLEY CHRISTIAN SCHOOLS, an Arizona non-profit corporation

By_____
Its_____

State of Arizona)
) ss:
County of Maricopa)

Subscribed and sworn to before me this ___ day of _____, 2019, by _____ in his/her capacity as _____ of Valley Christian Schools, an Arizona non-profit corporation.

_____
NOTARY PUBLIC

My Commission Expires:

Exhibit "A"

Legal Description of Developer's Property

Legal Description of the Property

The Land referred to herein below is situated in the County of Maricopa, State of Arizona, and is described as follows:

PARCEL NO. 1:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE NORTH 00 DEGREES, 01 MINUTES, 09 SECONDS WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 28, A DISTANCE OF 332.94 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 285.97 FEET;

THENCE NORTH 68 DEGREES, 32 MINUTES, 20 SECONDS EAST, A DISTANCE OF 128.92 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 300.00 FEET;

THENCE SOUTH 88 DEGREES, 15 MINUTES, 07 SECONDS EAST, A DISTANCE OF 55.63 FEET;

THENCE SOUTH 66 DEGREES, 44 MINUTES, 29 SECONDS EAST, A DISTANCE OF 57.28 FEET;

THENCE NORTH 22 DEGREES, 13 MINUTES, 52 SECONDS EAST, A DISTANCE OF 110.93 FEET;

THENCE SOUTH 67 DEGREES, 40 MINUTES, 00 SECONDS EAST, A DISTANCE OF 277.71 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 123 DEGREES, 42 MINUTES, 11 SECONDS, A DISTANCE OF 118.75 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 23 DEGREES, 18 MINUTES, 48 SECONDS EAST, A DISTANCE OF 327.75 FEET;

THENCE NORTH 64 DEGREES, 26 MINUTES, 53 SECONDS EAST, A DISTANCE OF 22.59 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 73.45 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 124 DEGREES, 40 MINUTES, 58 SECONDS, A DISTANCE OF 119.69 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE EASTERLY;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 15 DEGREES, 34 MINUTES, 59 SECONDS EAST, A DISTANCE OF 195.00 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY;

THENCE SOUTH 15 DEGREES, 34 MINUTES, 59 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 931.31 FEET TO A POINT ON THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES, 45 MINUTES, 13 SECONDS WEST, ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1,500.30 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION ACQUIRED BY THE CITY OF CHANDLER BY FINAL ORDER OF CONDEMNATION IN THE SUPERIOR COURT OF THE STATE OF ARIZONA, IN AND FOR THE COUNTY OF MARICOPA, CAUSE NO. C-533606 SEJD, AND RECORDED JUNE 15, 1987, IN RECORDING NO. 87-379832 OF OFFICIAL RECORDS; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES, 48 MINUTES, 13 SECONDS EAST ALONG THE EAST-WEST MIDSECTION LINE, A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE ALONG A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28, NORTH 00 DEGREES, 04 MINUTES, 30 SECONDS EAST, 60.00 FEET;

THENCE SOUTH 44 DEGREES, 51 MINUTES, 32 SECONDS EAST, 28.31 FEET TO A POINT ON A LINE LOCATED 40.00 FEET NORTH OF AND PARALLEL WITH SAID EAST-WEST MIDSECTION LINE OF SECTION 28;

THENCE ALONG SAID LINE SOUTH 89 DEGREES, 48 MINUTES 13 SECONDS EAST, 1,013.03 FEET TO A POINT OF CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT ON SAID EAST-WEST MIDSECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES, 48 MINUTES, 13 SECONDS WEST, 1,119.00 FEET TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO THE CITY OF CHANDLER, A MUNICIPAL CORPORATION BY DEED RECORDED IN RECORDING NO. 91-125093 OF OFFICIAL RECORDS;

AND EXCEPT THE WEST 65 FEET; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 45 MINUTES 13 SECOND EAST ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28, A DISTANCE OF 33.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN DOCUMENT NO. 87-379832, MARICOPA COUNTY RECORDS, SAID ALSO BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 07 MINUTES 03 SECONDS EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 333.16 FEET TO A POINT ON THE SOUTHERLY LINE OF CHANDLER CROSSING UNIT 2, A SUBDIVISION RECORDED IN BOOK 385 OF MAPS, PAGE 3, MARICOPA COUNTY RECORDS;

THENCE NORTH 89 DEGREES 58 MINUTES 51 SECONDS EAST, A DISTANCE OF 25.39 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 273.24 FEET;

THENCE SOUTH 44 DEGREES 53 MINUTES 11 SECONDS EAST, A DISTANCE OF 28.35 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 40.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID NORTH LINE, A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 40.00 FEET TO A POINT ON THE EAST-WEST MID SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 32.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 2:

THE NORTH 467.17 FEET OF THE WEST 361 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTHERLY ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 751.95 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11919, PAGE 1002, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 89 DEGREES 58 MINUTES EAST PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, A DISTANCE OF 980.01 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN SAID INSTRUMENT;

THENCE NORTHEASTERLY ALONG THE WEST RIGHT-OF-WAY LINE OF THE ARIZONA EASTERN RAILROAD, A DISTANCE OF 776.89 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11018, PAGE 676, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE WESTERLY ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 1189.09 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN INSTRUMENT NO. 91-125091, DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG THE EAST-WEST MID-SECTION LINE A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG SAID LINE, A DISTANCE OF 1119.00 FEET;

THENCE ALONG A CURVE TO THE RIGHT, WITH A RADIUS POINT BEARING NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF TANGENCY, SAID POINT LYING ON A LINE 40.00 FEET SOUTH OF AND PARALLEL WITH SAID EAST-WEST MID-SECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, 1012.86 FEET;

THENCE SOUTH 45 DEGREES 08 MINUTES 09 SECONDS WEST, 28.25 FEET TO A POINT ON A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 3 (NORTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 751.95 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG A LINE THAT IS PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 731.11 FEET;

THENCE SOUTH 00 DEGREES 04 MINUTES 37 SECONDS WEST, ALONG A LINE PERPENDICULAR TO THE LAST COURSE, 571.11 FEET TO A POINT ON THE CENTER LINE OF THE KYRENE CANAL;

THENCE SOUTH 43 DEGREES 44 MINUTES 00 SECONDS WEST, ALONG SAID CENTERLINE, 27.31 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 14.22 FEET TO A POINT ON THE NORTH FACE OF AN EXISTING BLOCK WALL;

THENCE NORTH 56 DEGREES 56 MINUTES 33 SECONDS WEST, ALONG SAID NORTH FACE, 27.56 FEET;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, CONTINUING ALONG SAID NORTH FACE AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF, AND PARALLEL WITH, THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG SAID WEST LINE, 575.87 FEET TO THE POINT OF BEGINNING;

EXCEPT THE EAST 10.00 FEET OF THE WEST 65.00 FEET, THEREOF AS CONVEYED TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 95-225841 AND RERECORDED IN DOCUMENT NO. 96-0482329, MARICOPA COUNTY RECORDS.

PARCEL NO. 4 (SOUTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTHWESTERLY OF THE CENTER LINE OF THE WESTERN CANAL.

WHICH INCLUDES THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 1,327.82 FEET TO A POINT WHICH IS 15.00 FEET NORTH OF THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER AND THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG THE NORTH FACE OF AN EXISTING BLOCK WALL AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET;

THENCE SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, CONTINUING ALONG SAID NORTH FACE, 27.56 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 696.47 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 15.00 FEET TO THE POINT OF BEGINNING.

Exhibit "B"

Property Located Within Reimbursement Area

Tax Parcel No.	Record Owner
301-84-069A	Qwest Corporation
301-84-001G	Chandler Arizona LP

Exhibit "C"

Satisfaction and Release

When recorded, return to:
City Clerk
City of Chandler
P. O. Box 4008, Mail Stop 606
Chandler, AZ 85244-4008

SATISFACTION AND RELEASE

The City of Chandler and Valley Christian Schools ("Developer") entered into an Agreement for Reimbursement of Offsite Construction Costs, Agreement Number _____, dated _____, recorded as Document No. ____ in the Official Records of Maricopa County, Arizona (the "Agreement"). The Agreement provided for the construction of certain improvements by Developer and authorized the reimbursement of a pro rata share of the cost of constructing those improvements to be paid by third parties benefitting from the improvements as provided under Chandler City Code Section 47-11.

City hereby acknowledges that _____ has satisfied all of its obligations under the Agreement, and hereby releases _____ from any further obligation under the Agreement.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

_____
Chandler City Clerk

By_____
Development Services Director

APPROVED AS TO FORM:

_____
Chandler City Attorney

STATE OF ARIZONA)
) ss.
County of Maricopa)

This Satisfaction and Release was acknowledged before me this ___ day of _____, 20__, by _____, on behalf of the City of Chandler.

My commission expires:
_____

_____
Notary Public

A.R.S. § 41-313(C) DISCLOSURES

Description of document this notarial certificate is being attached to:	
Type/Title	Satisfaction and Release
Date of Document	_____
Number of Pages	2
Add'l Signers (other than those named in the notarial certificate.)	None

EXHIBIT "E"
Deactivation Agreement

DEACTIVATION AGREEMENT

THIS DEACTIVATION AGREEMENT ("Agreement") is made and entered into by and between the CITY OF CHANDLER, an Arizona municipal corporation ("City") and the SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation ("SRP") effective on the last date on which the Parties complete execution of this Agreement. City and SRP each may be referred to separately in this Agreement as a "Party" or collectively as the "Parties".

WHEREAS, Valley Christian School proposes to improve the intersection of North 56th Street and West Galveston Street in the City of Chandler (the "Project"); and

WHEREAS, as part of the Project it is necessary to remove SRP irrigation delivery structure 7-2.7-40 (the "Facility") located within the intersection of North 56th Street and West Galveston Street in Section 28, Township 1 South, Range 4 East and;

WHEREAS, Valley Christian School will remove the Facility at its sole expense as a condition of CITY entering into this Agreement; and

WHEREAS, the Facility is not presently in service.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement, the Parties agree as follows:

1. SRP shall abandon its use of the Facility.

2. CITY shall cause the removal of the Facility at Valley Christian School's sole expense.

3. If at any time, any shareholder entitled to irrigation delivery to the Facility demonstrates adequate capability to deliver irrigation water to the Facility at the shareholder's property, as reasonably determined by SRP, CITY shall, upon written request by SRP, provide an easement for and pay all costs associated with the design and construction of a replacement facility.

4. SRP shall design and construct the replacement facility, shall own and control the replacement facility, shall operate and maintain the facility at SRP's expense, and shall at all times hold CITY harmless for any loss or damage arising out of the design, construction, maintenance, or use of the replacement facility.

5. SRP agrees to comply with, and to require its employees and contractors to comply with, City Code requirements for work in City-owned right-of-way. SRP agrees to submit to City for review and comment SRP plans for design and construction related to replacement of the Facility, though SRP shall not require City approval or permit associated with facility construction.

6. All notices, demands or requests upon any Party to this Agreement shall be in writing delivered or sent by mail to the following:

To City:	Development Services Director City of Chandler 215 E. Buffalo Street Chandler, Arizona 85225
With a copy to:	Chandler City Attorney 175 S. Arizona Avenue, Second Floor Chandler, Arizona 85225
To SRP:	Salt River Project Water Engineering Mail Station: SSW303 P.O. Box 52025 Phoenix, Arizona 85072-2025

[Signatures on following page.]

IN WITNESS WHEREOF, City has caused this Agreement to be duly executed in its name and on its behalf by its Mayor and its seal to be duly affixed and attested by its City Clerk, and SRP has signed the same on the day and year as stated below.

CITY OF CHANDLER, an Arizona municipal corporation

By _____
Mayor Kevin Hartke

Date _____

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation

By *Kyle Tilghman*
Kyle J. Tilghman
Director Water Engineering & Transmission

Date *February 6, 2021*

RESOLUTION NO. 5440

AUTHORIZING A DEACTIVATION AGREEMENT BETWEEN THE CITY OF CHANDLER AND SALT RIVER VALLEY WATER USERS' ASSOCIATION, AN ARIZONA CORPORATION, FOR THE REMOVAL OF AN IRRIGATION DELIVERY STRUCTURE TO ACCOMMODATE ROADWAY AND TRAFFIC IMPROVEMENTS AT THE INTERSECTION OF NORTH 56TH STREET AND WEST GALVESTON STREET.

WHEREAS, Valley Christian Schools is developing a K-12 private school campus in the area of North 56th Street and West Galveston Street in the City of Chandler, Arizona; and

WHEREAS, City requires Valley Christian Schools to install roadway and traffic improvements at the intersection of North 56th Street and West Galveston Street in connection with Valley Christian Schools' planned development; and

WHEREAS, to complete the required roadway and traffic improvements, Valley Christian Schools must remove an irrigation delivery structure owned by Salt River Valley Water Users' Association ("SRP") located at the intersection of North 56th Street and West Galveston Street (the "Facility"); and

WHEREAS, SRP is willing to abandon its use of the Facility and permit Valley Christian Schools to remove the Facility if City enters into a deactivation agreement with SRP under which City agrees to be responsible for design and construction of a replacement facility should it become necessary to serve an SRP shareholder entitled to receive delivery of irrigation water through the Facility; and

WHEREAS, City is willing to enter into a deactivation agreement with SRP under the terms and conditions set forth in a Development Agreement between City and Valley Christian Schools approved by a separate resolution of the Chandler City Council adopted concurrently with this Resolution.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. The City of Chandler is authorized to enter into a Deactivation Agreement with SRP in substantially the form attached hereto as Exhibit "A".

Section 2. The Mayor is authorized to execute the Deactivation Agreement and this Resolution on behalf of the City of Chandler.

PASSED AND ADOPTED by the City Council of Chandler, Arizona, this 25th day of February, 2021.

ATTEST:

CITY CLERK

MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5440 was duly passed and adopted by the Chandler City Council at a regular meeting held on the 25th day of February, 2021, at which a quorum was present.

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibit "A"

Deactivation Agreement

DEACTIVATION AGREEMENT

THIS DEACTIVATION AGREEMENT ("Agreement") is made and entered into by and between the CITY OF CHANDLER, an Arizona municipal corporation ("City") and the SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation ("SRP") effective on the last date on which the Parties complete execution of this Agreement. City and SRP each may be referred to separately in this Agreement as a "Party" or collectively as the "Parties".

WHEREAS, Valley Christian School proposes to improve the intersection of North 56th Street and West Galveston Street in the City of Chandler (the "Project"); and

WHEREAS, as part of the Project it is necessary to remove SRP irrigation delivery structure 7-2.7-40 (the "Facility") located within the intersection of North 56th Street and West Galveston Street in Section 28, Township 1 South, Range 4 East and;

WHEREAS, Valley Christian School will remove the Facility at its sole expense as a condition of CITY entering into this Agreement; and

WHEREAS, the Facility is not presently in service.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement, the Parties agree as follows:

1. SRP shall abandon its use of the Facility.

2. CITY shall cause the removal of the Facility at Valley Christian School's sole expense.

3. If at any time, any shareholder entitled to irrigation delivery to the Facility demonstrates adequate capability to deliver irrigation water to the Facility at the shareholder's property, as reasonably determined by SRP, CITY shall, upon written request by SRP, provide an easement for and pay all costs associated with the design and construction of a replacement facility.

4. SRP shall design and construct the replacement facility, shall own and control the replacement facility, shall operate and maintain the facility at SRP's expense, and shall at all times hold CITY harmless for any loss or damage arising out of the design, construction, maintenance, or use of the replacement facility.

5. SRP agrees to comply with, and to require its employees and contractors to comply with, City Code requirements for work in City-owned right-of-way. SRP agrees to submit to City for review and comment SRP plans for design and construction related to replacement of the Facility, though SRP shall not require City approval or permit associated with facility construction.

6. All notices, demands or requests upon any Party to this Agreement shall be in writing delivered or sent by mail to the following:

To City:	Development Services Director City of Chandler 215 E. Buffalo Street Chandler, Arizona 85225
With a copy to:	Chandler City Attorney 175 S. Arizona Avenue, Second Floor Chandler, Arizona 85225
To SRP:	Salt River Project Water Engineering Mail Station: SSW303 P.O. Box 52025 Phoenix, Arizona 85072-2025

[Signatures on following page.]

IN WITNESS WHEREOF, City has caused this Agreement to be duly executed in its name and on its behalf by its Mayor and its seal to be duly affixed and attested by its City Clerk, and SRP has signed the same on the day and year as stated below.

CITY OF CHANDLER, an Arizona municipal corporation

By _____
Mayor Kevin Hartke

Date _____

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation

By *Kyle Tilghman*
Kyle J. Tilghman
Director Water Engineering & Transmission

Date *February 6, 2021*

When recorded, return to:

City Clerk
City of Chandler
P. O. Box 4008, Mail Stop 606
Chandler, AZ 85244-4008

DEVELOPMENT AGREEMENT

between

CITY OF CHANDLER,
an Arizona municipal corporation

and

Valley Christian Schools,
an Arizona non-profit corporation

Approved by the Chandler City Council on February 25, 2021

DEVELOPMENT AGREEMENT

This Development Agreement ("Agreement") is entered into this ____ day of _____, 2021 ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation ("City") and Valley Christian Schools, an Arizona non-profit corporation ("Developer"). City and Developer may be referred to individually in this Agreement as a "Party" and collectively as the "Parties."

RECITALS

A. On or about February 25, 2021, the Chandler City Council approved Resolution No. _____ authorizing the Mayor to enter into this Agreement.

B. The Parties acknowledge that this Agreement constitutes a "Development Agreement" within the meaning of Arizona Revised Statutes § 9-500.05 and in accordance with that statute the Agreement shall be recorded against the interest of Developer in the Property, as described in Recital C below, in the Office of the Maricopa County Recorder to give notice to all persons of its existence and of the Parties' intent that the burdens and benefits contained in this Agreement be binding on and inure to the benefit of the Parties and all of their successors in interest and permitted assigns.

C. Developer owns multiple parcels of real property totaling approximately 32.5 gross acres in the area of North 56th Street and West Galveston Street in the City of Chandler, Maricopa County, Arizona, as legally described in Exhibit "A" to this Agreement (the "Property") and as depicted on the parcel map attached hereto as Exhibit "B". Developer intends to develop the Property as a K-12 private school campus.

D. By Ordinance No. 4244 adopted on July 26, 2010, the Chandler City Council rezoned that portion of the Property identified on Exhibit B as Parcel(s) 1 and 2 from Planned Area Development (PAD) to PAD Amended (DVR09-1003 Valley Christian High School) subject to certain conditions as set forth in that Ordinance, including phased development of the Property (the "Existing Zoning"). Developer has completed Phase One of the approved PAD, including construction of a softball field south of Galveston Street, construction of a new, two-story classroom building (the "New Classroom Building"), and occupancy of only the first floor of the New Classroom Building.

E. Phase Two of the Existing Zoning requires Developer to install certain offsite public infrastructure improvements necessary to serve the Property, including a northbound right-turn deceleration lane on 56th Street and the installation of a traffic signal at the intersection of 56th Street and Galveston Street.

F. Installation of the deceleration lane and traffic signal requires deactivation and removal of an existing Salt River Project (SRP) irrigation structure located at the

southeast corner of Galveston and 56th Street consisting of an irrigation box and related improvements (the "Irrigation Structure") under terms and conditions prescribed by SRP, including a deactivation agreement between City and SRP obligating City to restore the Irrigation Structure in the event that SRP requires the Irrigation Structure to fulfill SRP's obligation to deliver irrigation water to its shareholders in the area.

G. In 2000 City granted Developer a Use Permit authorizing Developer to install modular buildings on a portion of the Property located at the northeast corner of North 56th Street and West Galveston Street and identified on Exhibit B as Parcel 1. The Use Permit has expired pending Developer's application to extend it, currently on file with the City's Planning Division as case number PLH19-0065.

H. Developer also has applied to the City for rezoning of a portion of the Property located on the east side of 56th Street approximately 700 feet south of Galveston Street and identified on Exhibit B as Parcels 3 and 4 from Planned Area Development (PAD) for industrial uses to PAD for a private elementary and junior high school campus. The rezoning of Parcels 3 and 4 is pending with the City's Planning Division as case number PLH20-0040.

I. City and Developer agree that a comprehensive master plan for full development and build-out of the Property will serve the interests of students and the public by allowing Developer to complete the phased development of the Property, including associated public infrastructure improvements, as enrollment increases over time.

AGREEMENT

NOW, THERFORE, the Parties agree as follows:

ARTICLE 1. COMPLETION OF PHASE TWO OF EXISTING ZONING

Developer shall complete development of the Property under the Existing Zoning as set forth in this Article 1.

1.1 Installation of Roadway and Traffic Improvements.

(a) Developer agrees to perform or cause to be performed all of the work associated with the installation of a right-turn deceleration lane northbound on 56th Street south of Galveston Street and a traffic signal at 56th Street and Galveston Street as generally depicted in Exhibit "C" (the "Roadway and Traffic Improvements"). All work must be designed and completed in accordance with plans and specifications approved by the City of Chandler. Developer agrees to pay all costs required to complete installation of the Roadway and Traffic Improvements ("Construction Costs"). Construction Costs shall include, but are not limited to, fees needed to acquire temporary construction easements or similar permissions, design, engineering, bonding, construction, installation, inspection,

energization, and as-built mapping, including any and all costs associated with the deactivation of the Irrigation Structure located at the southeast corner of Galveston Street and 56th Street. Construction Costs shall also include any cost increases due to changes, additions, or deletions that are discovered during construction and that are associated with the Roadway and Traffic Improvements, as reasonably determined and approved by the City Engineer.

(b) The Parties anticipate that adequate right-of-way exists to accommodate all improvements associated with installation of the Roadway and Traffic Improvements. However, in the event that additional right-of-way is required, City agrees to acquire same at Developer's cost. Further, in the event that Developer is unable through the exercise of reasonable diligence to reach agreement with a neighboring property owner concerning acquisition of temporary construction easements or similar permissions needed to complete installation of the Roadway and Traffic Improvements, City agrees to acquire same at Developer's cost.

(c) City will acquire ownership of the Roadway and Traffic Improvements when completed, approved, and accepted by the City Engineer in accordance with Chandler City Code Section 47-8 ("Acceptance"). Following Acceptance, City shall assume full responsibility for all maintenance and power costs, other than replacement or repair covered under the one-year warranty for workmanship, materials and equipment as set forth in Code Section 47-8.

(d) Within one year after Acceptance, City and Developer shall enter into an Agreement for Reimbursement of Offsite Construction Costs in substantially the form attached hereto as Exhibit "D" (the "Reimbursement Agreement"). Under the Reimbursement Agreement, Developer shall be entitled to reimbursement as the remaining undeveloped corners of the 56th Street and Galveston Street intersection develop, in an amount not to exceed one-half of the Construction Costs, less the cost of the northbound deceleration lane on 56th Street.

(e) Should Developer be adjudged bankrupt or make an assignment for the benefit of creditors prior to the completion of the construction of the work to be performed under the terms of this Agreement, all rights under the reimbursement provisions hereof, if any, will be null and void and without force or effect, and facilities constructed prior to bankruptcy become the property of the City in fee simple, free and clear of any and all encumbrances, claims or liens whatsoever of Developer.

1.2 Deactivation of SRP Irrigation Structure.

(a) The Parties acknowledge that installation of the Roadway and Traffic Improvements requires deactivation and may require removal of the Irrigation Structure under terms and conditions prescribed by SRP, including, but not limited to, a deactivation agreement between City and SRP obligating City to restore the Irrigation Structure in the

event that SRP requires the Irrigation Structure to fulfill SRP's obligation to deliver irrigation water to its shareholders in the area.

(b) Concurrently with entering into this Agreement, City shall enter into a deactivation agreement with SRP in substantially the form attached hereto as Exhibit "E" (the "Deactivation Agreement").

(c) Developer agrees that, in the event that SRP requires City to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, Developer shall reimburse City for 100% of the Construction Costs (as defined in Section 1.1(a) of this Agreement) that City incurs in completing the restoration of the SRP Irrigation Structure under the terms of the Deactivation Agreement.

(d) In the event that SRP requires City to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, City shall inform Developer in writing at the addresses provided for Notice under this Agreement promptly following City's receipt of notice from SRP regarding the same. Thereafter, Developer may elect to communicate directly with SRP regarding the need, scope and other terms and conditions related to the completion of restoration of the SRP Irrigation Structure; however, City shall be included in any communications between Developer and SRP.

(e) At any time after completing its obligation to restore the SRP Irrigation Structure under the terms of the Deactivation Agreement, City may make written demand on Developer for payment of Construction Costs incurred by City under the Deactivation Agreement, and Developer shall remit same to City within 90 days thereafter Such demand from the City shall include, without limitation, invoices from contractors providing labor or materials to the restoration project and such other information and materials as Developer may reasonably request.

(f) Developer's failure to remit payment under Section 1.2(e) of this Agreement shall constitute a breach of this Agreement entitling City to any and all available legal and equitable remedies, including interest accruing at the legal statutory rate from the date of demand until the date of payment in full of all amounts due and owing, including accrued interest.

(g) Developer shall be responsible for any and all Construction Costs (as defined in Section 1.1(a) of this Agreement) associated with the removal of the SRP irrigation structure, subject to the provisions for reimbursement set forth in Section 1.1(d) of this Agreement.

1.3 Improvement of Parking Lot.

Concurrently with its completion of the traffic signal under Section 1.1 of this Agreement, Developer shall complete paving and other improvements to the parking lot

located at the southeast corner of 56th Street and Galveston Street. Developer shall submit design plans for the parking lot improvements to City for approval and shall otherwise comply with permit and design requirements as set forth in City Code.

1.4 Continued Use of Modular Buildings.

Four modular buildings (2 office occupancy and 2 classroom occupancy) currently exist on the Property in the locations noted on Exhibit B (the "Modular Buildings"). The Parties agree that Developer may continue the current use of the Modular Buildings until the date that is forty-five (45) days following the date that Developer satisfies all requirements for and City issues a Certificate of Occupancy for the second floor of the New Classroom Building, but in no event shall the use continue beyond June 30, 2022. Notwithstanding the foregoing, the Parties recognize that unforeseen and unforeseeable circumstances may impede Developer's ability to complete the improvements required under Sections 1.1 and 1.3 of this Agreement. Provided that the City Manager is satisfied that Developer is proceeding with completion of the improvements required under Sections 1.1 and 1.3 of this Agreement in a commercially reasonable manner and Developer has otherwise performed all necessary work to obtain a certificate of occupancy save the completion of the improvements required under Sections 1.1 and 1.3 of this Agreement, Developer may request and the Development Services Director may approve an extension of the June 30, 2022 deadline set forth above.

1.5 Certificate of Occupancy for Second Floor of Permanent Classroom Building.

Notwithstanding Developer's compliance with the occupancy requirements of the City's Building Code, City shall not issue a Certificate of Occupancy for the Second Floor of the New Classroom Building until Developer completes and City accepts or approves the improvements required under Sections 1.1 and 1.3 of this Agreement.

ARTICLE 2. COMPREHENSIVE MASTER PLAN FOR FULL CAMPUS BUILD-OUT

2.1 The Parties agree that City shall take no further action on Case No. PLH20-0040 or any future rezoning proposed for Parcels 3 and 4 until such time as Developer has completed Phase Two of the Existing Zoning, including, but not limited to, the provisions set forth in Article 1 of this Agreement.

2.2 Developer shall submit a comprehensive campus master plan that covers full build-out of the planned K-12 private school campus, including a comprehensive traffic study covering full build-out, in connection with the current or any future rezoning proposed for Parcels 3 and 4.

2.3 City shall take no further action on the current or any future rezoning proposed for Parcels 3 and 4 until Developer has fully performed and satisfied the provisions of Article 1 and Article 2 of this Agreement.

ARTICLE 3. INDEMNIFICATION AND INSURANCE

3.1 The following terms shall have the following meanings in this Article:

"Hazardous Substances" means any materials or pollutants which pose a hazard to the Property or to the Roadway and Traffic Improvements, or to persons on or about the same, or cause the Property or the Roadway and Traffic Improvements to be in violation of any law or local approval ("Environmental Law"), including any provision of Title 49 of the Arizona Revised Statutes or are defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," or "toxic" or words of similar import under any applicable law or regulation.

"Release": Any releasing, spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, disposing, or dumping.

3.2 Developer agrees to indemnify, defend and hold harmless, on demand, the City, its successors and assigns, its elected and appointed officials, employees, agents, boards, commissions, representatives, and attorneys, for, from and against any and all liabilities, obligations, damages, charges and expenses, penalties, suits, fines, claims, legal and investigation fees or costs, arising from or related to any claim or action for injury, liability, breach of warranty or representation, or damage to persons, property or the environment, and any and all claims or actions brought by any person, entity or governmental body (collectively, "Claims"), which Claims allege or arise in connection with contamination of, or adverse effects on, human health, property or the environment pursuant to any Environmental Law, the common law, or other statute, ordinance, rule, regulation, judgment or order of any governmental agency or judicial entity, and which are incurred or assessed because of, as a result of, or in connection with, whether in part or in whole, the performance of their respective obligations hereunder in connection with: (i) the respective acts, errors or omissions of Developer, and their respective owners, affiliated entities, agents, successors, assigns, officers, directors, or employees, (ii) any property dedicated to the City from them pursuant to this Agreement, or (iii) any Release or threat of Release of a Hazardous Substance into the environment by Developer or its employees or contractors in connection with this Agreement and/or the Property. This indemnification includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial actions, removal or restoration work required or conducted by any federal, state, county, or local governmental agency or political subdivision. The Parties agree that the City's right to enforce this covenant to indemnify is not an adequate remedy at law for a violation of any provision of this Agreement by Developer and that the City shall have the rights set forth in this paragraph in addition to all other rights and remedies provided by law or otherwise provided for in this Agreement.

3.3 Without limiting the foregoing, Developer shall promptly take all actions at its sole cost and expense as are necessary to mitigate any immediate threat to human health

or the environment by the presence of Hazardous Substances arising out of or resulting from Developer's performance hereunder. Developer shall undertake such actions without regard to the potential legal liability of any other person; however, any remedial activities by Developer shall not be construed as to impair Developer's rights, if any, to seek contribution or indemnity from another person.

3.4 Developer agrees to indemnify, defend, and hold harmless the City and its officers, officials, agents, and employees for, from and against any and all Claims for personal injury (including death) or property damage caused, or alleged to be caused, by the respective negligent or willful acts, errors, or omissions of Developer, and those of Developer's respective directors, officers, members, managers, agents, successors, assigns, or employees, arising out of or resulting from this Agreement. The preceding indemnity obligation includes any Claim or amount arising under the worker's compensation laws, Environmental Laws, or arising out of the failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, court decree, or for any breach or violation of this Agreement. For the consideration of this Agreement, Developer agrees to waive all rights of subrogation against the City for losses arising from or related to this Agreement.

3.5 Developer Insurance Requirements.

3.5.1 Generally. Developer must procure insurance, as more fully described below. Developer must maintain the insurance until Final Acceptance (as defined in Chandler City Code Section 47-8) of the Roadway and Traffic Improvements. The insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. City in no way warrants that the minimum limits stated in this section are sufficient to protect Developer from liabilities that might arise out of this Agreement. Developer is free to purchase such additional insurance as may be determined necessary.

3.5.2 Minimum Scope and Limits of Insurance. Developer must provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a "following form" basis.

Commercial General Liability – Occurrence Form:

This policy must include bodily injury, property damage, broad form contractual liability coverage.

General Aggregate	$4,000,000
Products – Completed Operations Aggregate	$2,000,000
Personal and Advertising Injury	$2,000,000
Each Occurrence	$2,000,000

This policy must be endorsed to include the following additional insured language: "The City of Chandler is named as an additional insured with respect to liability arising out of the activities performed by Developer."

Worker's Compensation and Employers' Liability:

Workers' Compensation	Statutory Employers' Liability
Each Accident	$100,000
Disease – Each Employee	$100,000
Disease – Policy Limit	$500,000

This policy must contain a waiver of subrogation against the City.

3.5.3 Consultant and Contractor Insurance Requirements. The Parties acknowledge that form agreements for the Roadway and Traffic Signal Improvements shall require each contractor and consultant to maintain insurance for coverages and amounts as reasonably approved by Developer and City.

ARTICLE 4. STANDARD TERMS AND CONDITIONS

4.1 Notices. Except as otherwise required by law, any notice, demand or other communication required to be given by this Agreement (each, a "Notice") shall be in writing and shall be given by (i) personal delivery; (ii) by certified or registered United States Mail, return receipt requested or by United States Priority Mail; or (iii) by any nationally recognized express or overnight delivery service (e.g., Federal Express or UPS), with all postage and other delivery charges prepaid and addressed to the Parties at their respective addresses set forth below, or at such other address as a Party may designate in writing pursuant to the terms of this paragraph:

To Developer: Dan Kuiper, Head of School
Valley Christian Schools
6900 W. Galveston St.
Chandler, AZ 85226
P: (480) 705-8888 ext. 203
Email: dkuiper@valleychristianaz.org

With copy to: Wendy Riddell
Berry Riddell, LLC
6750 E. Camelback Road, Suite 100
Scottsdale, AZ 85251

To City: Development Services Director
City of Chandler
215 E. Buffalo Street
Chandler, AZ 85225
(480) 782-3410

With copy to: Chandler City Attorney
175 S. Arizona Avenue, Second Floor
Chandler, AZ 85225
(480) 782-4640

4.2 Effective Date of Notices. Regardless of delivery method, any Notice will be deemed effective upon actual delivery or refusal to accept delivery by the addressee. Notwithstanding the foregoing, no payment shall be deemed to be made until actually received in good and available funds by the intended payee. The Parties hereby acknowledge and agree that any Notice transmitted solely by facsimile or by electronic mail shall be deemed ineffective.

4.3 Cooperation; Further Acts. The Parties agree to cooperate with each other consistent with this Agreement, as reasonably necessary to facilitate the design and construction of the Roadway and Traffic Improvements in accordance with the terms of this Agreement. In furtherance of the foregoing, each of the Parties hereto shall execute and deliver all such documents and perform all such acts as reasonably necessary, from time to time, to carry out the matters contemplated by this Agreement.

4.4 Compliance with City Code and Design Standards. Other than as expressly provided in this Agreement or by laws of general application, Developer shall comply with all applicable requirements for submission and approval of a preliminary and final plat and site plan under Chapter 48 of the Chandler City Code, shall obtain appropriate City permits for all work that it intends to undertake on the Property, and shall perform such work in compliance with applicable Chandler City Code requirements and technical design manuals.

4.5 Default. Subject to the limitations set forth in this Agreement, in the event of a default by a Party of the terms of this Agreement, the non-defaulting Party shall have all remedies available to it at law or in equity, including, without limitation, specific performance of any obligation created under this Agreement and the issuance of an injunction; provided, however, each Party waives any right to seek recovery of, or recover, any special, consequential, punitive, or other monetary damages of any kind, other than actual damages.

4.6 Venue; Attorneys' Fees. Any legal actions instituted pursuant to this Agreement must be filed in the County of Maricopa, State of Arizona, or in the Federal District Court in the District of Arizona. In any legal action, the prevailing party in such

action will be entitled to reimbursement by the other Party for all reasonable costs and expenses of such action, including reasonable attorneys' fees as may be fixed by the court.

4.7 Conflicts of Interest. No member, official or employee of the City may have any direct or indirect interest in this Agreement, nor participate in any decision relating to the Agreement which is prohibited by law. All Parties hereto acknowledge that this Agreement is subject to cancellation pursuant to the provisions of Arizona Revised Statutes § 38-511.

4.8 No Partnership; Third Parties. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any owner-contractor, contractor-contractor, employer-employee, partnership, or joint venture relationship between or among any or all of the Parties hereto. No term or provision of this Agreement is intended to, or shall, be for the benefit of any person, firm, organization or corporation not a party hereto, and no such other person, firm, organization or corporation shall have any right or cause of action hereunder.

4.9 Entire Agreement. This Agreement constitutes the entire agreement between the Parties hereto pertaining to the subject matter hereof. All prior and contemporaneous agreements, representations and understandings of the Parties, oral or written, are hereby superseded and merged herein. No change or addition is to be made to this Agreement except by written amendment executed by the Parties hereto.

4.10 Governing Law. This Agreement is entered into in Arizona and shall be construed and interpreted under the laws of the State of Arizona.

4.11 Severability. Wherever possible, each provision of this Agreement shall be interpreted in such manner as to be valid under applicable law, but if any provision of this Agreement shall be conclusively determined to be invalid or unenforceable to any extent, such provision shall be ineffective to the extent of such invalidation or unenforceability, but such determination shall not invalidate the remainder of such provision or the remaining provisions of this Agreement.

4.12 Calculation of Days. As used herein, the term "business day" shall mean a day that is not a Saturday, Sunday or legal holiday in the City of Chandler. If the last day of any time period stated in this Agreement or the date on which any obligation to be performed under this Agreement shall fall on a Saturday, Sunday or legal holiday in the State of Arizona, then the duration of such time period or the date of performance, as applicable, shall be extended so that it shall end on the next succeeding day which is not a Saturday, Sunday or legal holiday in the State of Arizona.

4.13 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The signature pages from one or more

counterparts may be removed from such counterparts and such signature pages all attached to a single instrument so that the signatures of all Parties may be physically attached to a single document.

4.14 Recitals; Exhibits. The Recitals of this Agreement are incorporated herein by reference and form a part of this Agreement. The Parties agree that all references to this Agreement include all Exhibits designated in and attached to this Agreement, such Exhibits being incorporated into and made an integral part of this Agreement for all purposes.

4.15 Time of Essence. Time is of the essence of this Agreement and each provision of this Agreement.

4.16 Recordation; Full Release of Property. The City will cause this Agreement to be recorded in its entirety in the Official Records of Maricopa County, Arizona, not later than 15 days after execution of the Agreement by the Parties, and shall thereafter promptly provide a recorded copy of this Agreement to Developer. This Agreement shall run with the land, shall bind Developer's successors and assigns, and shall not be released unless and until SRP terminates the Deactivation Agreement or otherwise releases City from any further obligation under the Deactivation Agreement.

4.17 Warranty Against Payment of Consideration for Agreement. Developer warrants that it has not paid or given, and will not pay or give, any third person any money or other consideration for obtaining this Agreement, other than normal costs of conducting business and costs of professional services such as architects, consultants, engineers, and attorneys.

4.18 Non-liability of City Officials and Employees. No member, official or employee of the City will be personally liable to Developer, or any successor in interest, in the event of any default or breach by the City or for any amount which may become due to Developer or its successor, or on any obligation under the terms of this Agreement.

4.19 Authority to Execute. The person signing this Agreement on behalf of Developer represents and warrants that they have the necessary authorization to enter into this Agreement on behalf of the corporation and to bind the corporation to the terms and conditions of this Agreement.

4.20 No Waiver. Except as otherwise expressly provided in this Agreement, any failure or delay by any Party in asserting any of its rights or remedies as to any default, will not operate as a waiver of any default, or of any such rights or remedies, or deprive any such Party of its right to institute and maintain any actions or proceedings which it may deem necessary to protect, assert, or enforce any such rights or remedies, including but not limited to rights and remedies existing at common law.

4.21 Captions. The captions contained in this Agreement are merely a reference and are not to be used to construe or limit the text.

4.22 No Agency Created. Nothing contained in this Agreement creates any partnership, joint venture, or agency relationship among the City or Developer. No term or provision of this Agreement is intended to be for the benefit of any person, firm, organization, or corporation not a Party hereto, and no other person, firm, organization, or corporation may have any right or cause of action hereunder.

4.23 Governing Statutes. References are made in this Agreement to specific sections of the Arizona Revised Statutes. Any such references mean the statute in effect on the date of the execution of this Agreement and any subsequent renumbering or reordering of those provisions.

4.24 No Israel Boycott. By entering into this contract, Developer certifies that Developer is not currently engaged in, and agrees for the duration of the contract to not engage in, a boycott of Israel.

[Signatures on following page.]

IN WITNESS WHEREOF, City has caused this Agreement to be duly executed in its name and on its behalf by its Mayor and its seal to be hereunder duly affixed and attested by its City Clerk, and Developer has signed the same, on or as of the day and year first above written.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

City Clerk

Mayor

APPROVED AS TO FORM:

Assistant City Attorney

VALLEY CHRISTIAN SCHOOLS, an Arizona nonprofit corporation

By: Dan Kuipers
Its: Head of School

STATE OF ARIZONA)
) ss.
County of Maricopa)

Subscribed and sworn to before me this 9 day of February 2021, by Dan Kuipers, in his or her capacity as Head of School of Valley Christian Schools, an Arizona nonprofit corporation.

Tina Kidd
Notary Public

My Commission Expires: 6/17/22

TINA KIDD
NOTARY PUBLIC - ARIZONA
MARICOPA COUNTY
COMMISSION #546873
MY COMMISSION EXPIRES
JUNE 17, 2022

EXHIBIT "A"

Legal Description of the Property

Legal Description of the Property

The Land referred to herein below is situated in the County of Maricopa, State of Arizona, and is described as follows:

PARCEL NO. 1:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE NORTH 00 DEGREES, 01 MINUTES, 09 SECONDS WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 28, A DISTANCE OF 332.94 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 285.97 FEET;

THENCE NORTH 68 DEGREES, 32 MINUTES, 20 SECONDS EAST, A DISTANCE OF 128.92 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 300.00 FEET;

THENCE SOUTH 88 DEGREES, 15 MINUTES, 07 SECONDS EAST, A DISTANCE OF 55.63 FEET;

THENCE SOUTH 66 DEGREES, 44 MINUTES, 29 SECONDS EAST, A DISTANCE OF 57.28 FEET;

THENCE NORTH 22 DEGREES, 13 MINUTES, 52 SECONDS EAST, A DISTANCE OF 110.93 FEET;

THENCE SOUTH 67 DEGREES, 40 MINUTES, 00 SECONDS EAST, A DISTANCE OF 277.71 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 123 DEGREES, 42 MINUTES, 11 SECONDS, A DISTANCE OF 118.75 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 23 DEGREES, 18 MINUTES, 48 SECONDS EAST, A DISTANCE OF 327.75 FEET;

THENCE NORTH 64 DEGREES, 26 MINUTES, 53 SECONDS EAST, A DISTANCE OF 22.59 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 73.45 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 124 DEGREES, 40 MINUTES, 58 SECONDS, A DISTANCE OF 119.69 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE EASTERLY;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 15 DEGREES, 34 MINUTES, 59 SECONDS EAST, A DISTANCE OF 195.00 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY;

THENCE SOUTH 15 DEGREES, 34 MINUTES, 59 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 931.31 FEET TO A POINT ON THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES, 45 MINUTES, 13 SECONDS WEST, ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1,500.30 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION ACQUIRED BY THE CITY OF CHANDLER BY FINAL ORDER OF CONDEMNATION IN THE SUPERIOR COURT OF THE STATE OF ARIZONA, IN AND FOR THE COUNTY OF MARICOPA, CAUSE NO. C-533606 SEJD, AND RECORDED JUNE 15, 1987, IN RECORDING NO. 87-379832 OF OFFICIAL RECORDS; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES, 48 MINUTES, 13 SECONDS EAST ALONG THE EAST-WEST MIDSECTION LINE, A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE ALONG A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28, NORTH 00 DEGREES, 04 MINUTES, 30 SECONDS EAST, 60.00 FEET;

THENCE SOUTH 44 DEGREES, 51 MINUTES, 32 SECONDS EAST, 28.31 FEET TO A POINT ON A LINE LOCATED 40.00 FEET NORTH OF AND PARALLEL WITH SAID EAST-WEST MIDSECTION LINE OF SECTION 28;

THENCE ALONG SAID LINE SOUTH 89 DEGREES, 48 MINUTES 13 SECONDS EAST, 1,013.03 FEET TO A POINT OF CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT ON SAID EAST-WEST MIDSECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES, 48 MINUTES, 13 SECONDS WEST, 1,119.00 FEET TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO THE CITY OF CHANDLER, A MUNICIPAL CORPORATION BY DEED RECORDED IN RECORDING NO. 91-125093 OF OFFICIAL RECORDS;

AND EXCEPT THE WEST 65 FEET; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 45 MINUTES 13 SECOND EAST ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28, A DISTANCE OF 33.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN DOCUMENT NO. 87-379832, MARICOPA COUNTY RECORDS, SAID ALSO BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 07 MINUTES 03 SECONDS EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 333.16 FEET TO A POINT ON THE SOUTHERLY LINE OF CHANDLER CROSSING UNIT 2, A SUBDIVISION RECORDED IN BOOK 385 OF MAPS, PAGE 3, MARICOPA COUNTY RECORDS;

THENCE NORTH 89 DEGREES 58 MINUTES 51 SECONDS EAST, A DISTANCE OF 25.39 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 273.24 FEET;

THENCE SOUTH 44 DEGREES 53 MINUTES 11 SECONDS EAST, A DISTANCE OF 28.35 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 40.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID NORTH LINE, A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 40.00 FEET TO A POINT ON THE EAST-WEST MID SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 32.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 2:

THE NORTH 467.17 FEET OF THE WEST 361 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTHERLY ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 751.95 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11919, PAGE 1002, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 89 DEGREES 58 MINUTES EAST PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, A DISTANCE OF 980.01 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN SAID INSTRUMENT;

THENCE NORTHEASTERLY ALONG THE WEST RIGHT-OF-WAY LINE OF THE ARIZONA EASTERN RAILROAD, A DISTANCE OF 776.89 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11018, PAGE 676, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE WESTERLY ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 1189.09 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN INSTRUMENT NO. 91-125091, DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG THE EAST-WEST MID-SECTION LINE A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG SAID LINE, A DISTANCE OF 1119.00 FEET;

THENCE ALONG A CURVE TO THE RIGHT, WITH A RADIUS POINT BEARING NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF TANGENCY, SAID POINT LYING ON A LINE 40.00 FEET SOUTH OF AND PARALLEL WITH SAID EAST-WEST MID-SECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, 1012.86 FEET;

THENCE SOUTH 45 DEGREES 08 MINUTES 09 SECONDS WEST, 28.25 FEET TO A POINT ON A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 3 (NORTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 751.95 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG A LINE THAT IS PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 731.11 FEET;

THENCE SOUTH 00 DEGREES 04 MINUTES 37 SECONDS WEST, ALONG A LINE PERPENDICULAR TO THE LAST COURSE, 571.11 FEET TO A POINT ON THE CENTER LINE OF THE KYRENE CANAL;

THENCE SOUTH 43 DEGREES 44 MINUTES 00 SECONDS WEST, ALONG SAID CENTERLINE, 27.31 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 14.22 FEET TO A POINT ON THE NORTH FACE OF AN EXISTING BLOCK WALL;

THENCE NORTH 56 DEGREES 56 MINUTES 33 SECONDS WEST, ALONG SAID NORTH FACE, 27.56 FEET;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, CONTINUING ALONG SAID NORTH FACE AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF, AND PARALLEL WITH, THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG SAID WEST LINE, 575.87 FEET TO THE POINT OF BEGINNING;

EXCEPT THE EAST 10.00 FEET OF THE WEST 65.00 FEET, THEREOF AS CONVEYED TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 95-225841 AND RERECORDED IN DOCUMENT NO. 96-0482329, MARICOPA COUNTY RECORDS.

PARCEL NO. 4 (SOUTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTHWESTERLY OF THE CENTER LINE OF THE WESTERN CANAL.

WHICH INCLUDES THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 1,327.82 FEET TO A POINT WHICH IS 15.00 FEET NORTH OF THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER AND THE POINT OF BEGINNING;

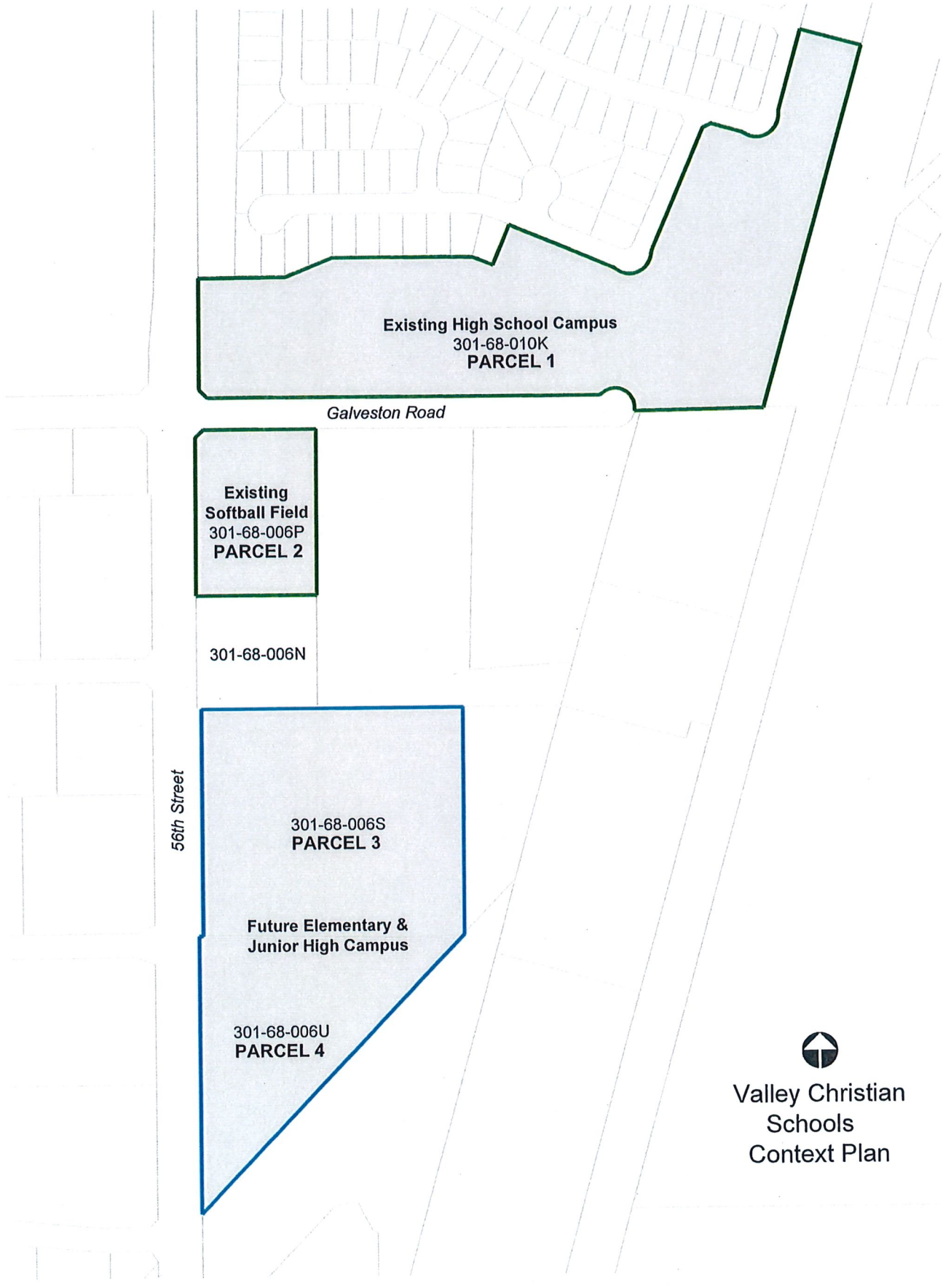
THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG THE NORTH FACE OF AN EXISTING BLOCK WALL AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET;

THENCE SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, CONTINUING ALONG SAID NORTH FACE, 27.56 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 696.47 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 15.00 FEET TO THE POINT OF BEGINNING.

EXHIBIT "B"
Parcel Map



Valley Christian
Schools
Context Plan

EXHIBIT "C"

Roadway and Traffic Improvements

RVi

VALLEY CHRISTIAN • **Intersection Exhibit**

CHANDLER, ARIZONA
2020-12-08
18003081
VALLEY CHRISTIAN SCHOOLS

SCALE 1" = 20'-0"

For illustrative purposes only. Subject to change without notice.

EXHIBIT "D"

Reimbursement Agreement

When recorded, mail to:

City Clerk
City Of Chandler
P. O. Box 4008 MS 606
Chandler, Arizona 85244-4008

AGREEMENT FOR REIMBURSEMENT OF OFFSITE IMPROVEMENT COSTS
(Agreement No. _____)

This Agreement for Reimbursement of Offsite Improvement Costs ("Agreement") is made and entered into this ____ day of _____, 20___ ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation ("City") and Valley Christian Schools, an Arizona non-profit corporation ("Developer").

RECITALS

A. When the value of offsite improvements constructed by a developer exceeds the developer's obligation, Chandler City Code Sections 47-11 (deferral of off-site improvements) and 47-15 (traffic signals) authorize the City Engineer to enter into a reimbursement agreement to provide for recovery of costs from others who develop later within the Reimbursement Area.

B. Developer has constructed offsite improvements required by City in connection with development of the real property described in Exhibit "A". City issued Acceptance (as defined under Chandler City Code Section 47-8) of Developer's offsite improvements on _____.

C. The offsite improvements constructed by Developer also benefit the real property described in Exhibit "B" ("Reimbursement Area"). City has determined that Developer is eligible for reimbursement by future developers within the Reimbursement Area who will benefit from the offsite improvements constructed by Developer.

D. Developer desires to enter into an agreement with City for reimbursement of costs incurred by Developer for the construction of offsite improvements the value of

which exceeds the Developer's offsite improvement obligation.

NOW, THEREFORE, City and Developer agree as follows:

1. The improvements eligible for reimbursement are described as follows ("Covered Improvements"):

1/2 of traffic signal at the intersection of North 56th Street and West Galveston Street.

2. Developer's entitlement to reimbursement expires 15 years from the Effective Date of this Agreement.

3. Developer shall inform City of Developer's current address and any changes in ownership of Developer for the entire term of this Agreement. Developer's failure to perform under this Paragraph 3 shall automatically void Developer's eligibility for reimbursement under this Agreement and all facilities constructed shall be the property of City in fee simple, free and clear of any and all encumbrances, claims, or liens whatsoever.

4. Should Developer be adjudged bankrupt or make an assignment for the benefit of creditors at any time during the term of this Agreement, this Agreement shall become null and void and all facilities constructed shall be the property of City in fee simple, free and clear of any and all encumbrances, claims, or liens whatsoever.

5. City shall assess property located within the Reimbursement Area a proportionate share of the cost of the Covered Improvements as determined by the City Engineer or his designee. City shall remit assessments collected from property located in the Reimbursement Area to Developer less (a) $100.00 per transaction, which shall be retained by City to cover its costs of administering this Agreement, and (b) subject to the reimbursement provisions of Article 1 of the Development Agreement between the City of Chandler and Valley Christian Schools dated _____.

7. Within 30 days after satisfactory payment of buy-in fees from any third party under this Agreement, City shall record a Satisfaction and Release in substantially the form attached as Exhibit "C".

8. Developer may assign its rights under this Agreement upon providing written notification of the assignee's name and address to City at the address set forth below, only if Developer assigns concurrently its rights and obligations under the Development Agreement. Upon assignment, assignee shall assume all rights and responsibilities of

Developer under this Agreement, including the obligation to inform City of current address and ownership under Paragraph 3 above.

9. City may retain any assessments collected under this Agreement if Developer or any assignee fails to satisfy any term of this Agreement. In addition, City may retain any assessments collected under this Agreement following assignment of Developer's right to reimbursement under this Agreement to City as contemplated in the Development Agreement.

10. Following the expiration of this Agreement, City may make and retain assessments for the off-site improvements identified in Paragraph 1 above.

11. Subject to written notice of change of address or ownership under Paragraph 3 above, all notices, demands or other communication given under this Agreement shall be in writing and sent to the following via certified, first-class U.S. Mail, return receipt required:

To Developer:
Dan Kuiper, Head of Schools
Valley Christian Schools
6900 W. Galveston St.
Chandler, AZ 85226

With a copy to:
Wendy Riddell
Berry Riddell, LLC
6750 E. Camelback Road, Suite 100
Scottsdale, AZ 85251

To City:
Development Services Director
City of Chandler
215 E. Buffalo Street
Chandler, AZ 85225

With a copy to:
Chandler City Attorney
175 S. Arizona Avenue, Second Floor
Chandler, AZ 85225

12. This Agreement is subject to the provisions of A.R.S. § 38-511.

[Signatures on Following Page]

IN WITNESS WHEREOF, City and Developer have executed this Agreement through their representatives duly authorized to execute this Agreement and to bind their respective entities to its terms and obligations.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

_____
City Clerk

By_____
Derek Horn
Development Services Director
Date signed:_____

APPROVED AS TO FORM:

_____
Assistant City Attorney

VALLEY CHRISTIAN SCHOOLS, an Arizona non-profit corporation

By_____
Its_____

State of Arizona)
) ss:
County of Maricopa)

Subscribed and sworn to before me this ___ day of _____, 2019, by _____ in his/her capacity as _____ of Valley Christian Schools, an Arizona non-profit corporation.

_____
NOTARY PUBLIC

My Commission Expires:

Exhibit "A"

Legal Description of Developer's Property

Legal Description of the Property

The Land referred to herein below is situated in the County of Maricopa, State of Arizona, and is described as follows:

PARCEL NO. 1:

THAT PART OF THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE NORTH 00 DEGREES, 01 MINUTES, 09 SECONDS WEST, ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SAID SECTION 28, A DISTANCE OF 332.94 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 285.97 FEET;

THENCE NORTH 68 DEGREES, 32 MINUTES, 20 SECONDS EAST, A DISTANCE OF 128.92 FEET;

THENCE NORTH 89 DEGREES, 58 MINUTES, 51 SECONDS EAST, A DISTANCE OF 300.00 FEET;

THENCE SOUTH 88 DEGREES, 15 MINUTES, 07 SECONDS EAST, A DISTANCE OF 55.63 FEET;

THENCE SOUTH 66 DEGREES, 44 MINUTES, 29 SECONDS EAST, A DISTANCE OF 57.28 FEET;

THENCE NORTH 22 DEGREES, 13 MINUTES, 52 SECONDS EAST, A DISTANCE OF 110.93 FEET;

THENCE SOUTH 67 DEGREES, 40 MINUTES, 00 SECONDS EAST, A DISTANCE OF 277.71 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 123 DEGREES, 42 MINUTES, 11 SECONDS, A DISTANCE OF 118.75 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHEASTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 23 DEGREES, 18 MINUTES, 48 SECONDS EAST, A DISTANCE OF 327.75 FEET;

THENCE NORTH 64 DEGREES, 26 MINUTES, 53 SECONDS EAST, A DISTANCE OF 22.59 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 73.45 FEET TO THE BEGINNING OF A TANGENT CURVE OF 55.00 FOOT RADIUS, CONCAVE SOUTHWESTERLY;

THENCE SOUTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE NORTHWESTERLY;

THENCE NORTHEASTERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 124 DEGREES, 40 MINUTES, 58 SECONDS, A DISTANCE OF 119.69 FEET TO THE BEGINNING OF A TANGENT REVERSE CURVE OF 55.00 FOOT RADIUS, CONCAVE EASTERLY;

THENCE NORTHERLY, ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 17 DEGREES, 20 MINUTES, 29 SECONDS, A DISTANCE OF 16.65 FEET;

THENCE NORTH 15 DEGREES, 34 MINUTES, 59 SECONDS EAST, A DISTANCE OF 195.00 FEET;

THENCE SOUTH 74 DEGREES, 25 MINUTES, 01 SECONDS EAST, A DISTANCE OF 160.00 FEET TO A POINT ON THE WESTERLY LINE OF THE SOUTHERN PACIFIC RAILROAD RIGHT-OF-WAY;

THENCE SOUTH 15 DEGREES, 34 MINUTES, 59 SECONDS WEST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 931.31 FEET TO A POINT ON THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES, 45 MINUTES, 13 SECONDS WEST, ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 1,500.30 FEET TO THE POINT OF BEGINNING.

EXCEPT THAT PORTION ACQUIRED BY THE CITY OF CHANDLER BY FINAL ORDER OF CONDEMNATION IN THE SUPERIOR COURT OF THE STATE OF ARIZONA, IN AND FOR THE COUNTY OF MARICOPA, CAUSE NO. C-533606 SEJD, AND RECORDED JUNE 15, 1987, IN RECORDING NO. 87-379832 OF OFFICIAL RECORDS; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES, 48 MINUTES, 13 SECONDS EAST ALONG THE EAST-WEST MIDSECTION LINE, A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE ALONG A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28, NORTH 00 DEGREES, 04 MINUTES, 30 SECONDS EAST, 60.00 FEET;

THENCE SOUTH 44 DEGREES, 51 MINUTES, 32 SECONDS EAST, 28.31 FEET TO A POINT ON A LINE LOCATED 40.00 FEET NORTH OF AND PARALLEL WITH SAID EAST-WEST MIDSECTION LINE OF SECTION 28;

THENCE ALONG SAID LINE SOUTH 89 DEGREES, 48 MINUTES 13 SECONDS EAST, 1,013.03 FEET TO A POINT OF CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE RIGHT HAVING A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES, 00 MINUTES, 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT ON SAID EAST-WEST MIDSECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES, 48 MINUTES, 13 SECONDS WEST, 1,119.00 FEET TO THE TRUE POINT OF BEGINNING, AS CONVEYED TO THE CITY OF CHANDLER, A MUNICIPAL CORPORATION BY DEED RECORDED IN RECORDING NO. 91-125093 OF OFFICIAL RECORDS;

AND EXCEPT THE WEST 65 FEET; AND EXCEPT BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 45 MINUTES 13 SECOND EAST ALONG THE EAST-WEST MID-SECTION LINE OF SAID SECTION 28, A DISTANCE OF 33.00 FEET TO A POINT ON THE EASTERLY RIGHT-OF-WAY LINE AS DESCRIBED IN DOCUMENT NO. 87-379832, MARICOPA COUNTY RECORDS, SAID ALSO BEING THE TRUE POINT OF BEGINNING;

THENCE NORTH 01 DEGREES 07 MINUTES 03 SECONDS EAST ALONG SAID EASTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 333.16 FEET TO A POINT ON THE SOUTHERLY LINE OF CHANDLER CROSSING UNIT 2, A SUBDIVISION RECORDED IN BOOK 385 OF MAPS, PAGE 3, MARICOPA COUNTY RECORDS;

THENCE NORTH 89 DEGREES 58 MINUTES 51 SECONDS EAST, A DISTANCE OF 25.39 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 273.24 FEET;

THENCE SOUTH 44 DEGREES 53 MINUTES 11 SECONDS EAST, A DISTANCE OF 28.35 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 40.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID NORTH LINE, A DISTANCE OF 20.00 FEET TO A POINT ON THE EAST LINE OF THE WEST 65.00 FEET OF THE NORTHWEST QUARTER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 01 MINUTES 09 SECONDS EAST ALONG SAID EAST LINE, A DISTANCE OF 40.00 FEET TO A POINT ON THE EAST-WEST MID SECTION LINE OF SAID SECTION 28;

THENCE NORTH 89 DEGREES 45 MINUTES 13 SECONDS WEST ALONG SAID EAST-WEST MID-SECTION LINE, A DISTANCE OF 32.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 2:

THE NORTH 467.17 FEET OF THE WEST 361 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THAT PART OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTHERLY ALONG THE WEST LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 751.95 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11919, PAGE 1002, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE SOUTH 89 DEGREES 58 MINUTES EAST PARALLEL WITH THE SOUTH LINE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, A DISTANCE OF 980.01 FEET TO THE NORTHWEST CORNER OF THE PROPERTY DESCRIBED IN SAID INSTRUMENT;

THENCE NORTHEASTERLY ALONG THE WEST RIGHT-OF-WAY LINE OF THE ARIZONA EASTERN RAILROAD, A DISTANCE OF 776.89 FEET, MORE OR LESS, TO THE NORTHEAST CORNER OF THE PROPERTY DESCRIBED IN INSTRUMENT RECORDED AS DOCKET 11018, PAGE 676, RECORDS OF MARICOPA COUNTY, ARIZONA;

THENCE WESTERLY ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, A DISTANCE OF 1189.09 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN INSTRUMENT NO. 91-125091, DESCRIBED AS FOLLOWS:

A PARCEL OF LAND LYING IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

BEGINNING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG THE EAST-WEST MID-SECTION LINE A DISTANCE OF 55.00 FEET TO THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH 89 DEGREES 48 MINUTES 13 SECONDS EAST ALONG SAID LINE, A DISTANCE OF 1119.00 FEET;

THENCE ALONG A CURVE TO THE RIGHT, WITH A RADIUS POINT BEARING NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 121 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 105.59 FEET TO A POINT OF REVERSE CURVATURE;

THENCE ALONG SAID CURVE TO THE LEFT WITH A RADIUS OF 20.00 FEET, A CENTRAL ANGLE OF 31 DEGREES 00 MINUTES 10 SECONDS AND AN ARC LENGTH OF 10.82 FEET TO A POINT OF TANGENCY, SAID POINT LYING ON A LINE 40.00 FEET SOUTH OF AND PARALLEL WITH SAID EAST-WEST MID-SECTION LINE;

THENCE ALONG SAID LINE NORTH 89 DEGREES 48 MINUTES 13 SECONDS WEST, 1012.86 FEET;

THENCE SOUTH 45 DEGREES 08 MINUTES 09 SECONDS WEST, 28.25 FEET TO A POINT ON A LINE 55.00 FEET EAST OF AND PARALLEL WITH THE WEST LINE OF SECTION 28;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, 60.00 FEET TO THE TRUE POINT OF BEGINNING.

PARCEL NO. 3 (NORTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 751.95 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG A LINE THAT IS PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 731.11 FEET;

THENCE SOUTH 00 DEGREES 04 MINUTES 37 SECONDS WEST, ALONG A LINE PERPENDICULAR TO THE LAST COURSE, 571.11 FEET TO A POINT ON THE CENTER LINE OF THE KYRENE CANAL;

THENCE SOUTH 43 DEGREES 44 MINUTES 00 SECONDS WEST, ALONG SAID CENTERLINE, 27.31 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 14.22 FEET TO A POINT ON THE NORTH FACE OF AN EXISTING BLOCK WALL;

THENCE NORTH 56 DEGREES 56 MINUTES 33 SECONDS WEST, ALONG SAID NORTH FACE, 27.56 FEET;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, CONTINUING ALONG SAID NORTH FACE AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF, AND PARALLEL WITH, THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET TO A POINT ON THE WEST LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG SAID WEST LINE, 575.87 FEET TO THE POINT OF BEGINNING;

EXCEPT THE EAST 10.00 FEET OF THE WEST 65.00 FEET, THEREOF AS CONVEYED TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 95-225841 AND RERECORDED IN DOCUMENT NO. 96-0482329, MARICOPA COUNTY RECORDS.

PARCEL NO. 4 (SOUTH PORTION OF SOUTHERN PARCEL):

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, LYING NORTHWESTERLY OF THE CENTER LINE OF THE WESTERN CANAL.

WHICH INCLUDES THAT PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 28, TOWNSHIP 1 SOUTH, RANGE 4 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 28;

THENCE SOUTH 00 DEGREES 04 MINUTES 30 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 1,327.82 FEET TO A POINT WHICH IS 15.00 FEET NORTH OF THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER AND THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 55 MINUTES 23 SECONDS EAST, ALONG THE NORTH FACE OF AN EXISTING BLOCK WALL AND THE WESTERLY PROLONGATION THEREOF, SAID NORTH FACE BEING 15 FEET NORTH OF AND PARALLEL WITH THE SOUTH LINE OF SAID NORTHWEST QUARTER, 673.39 FEET;

THENCE SOUTH 56 DEGREES 56 MINUTES 33 SECONDS EAST, CONTINUING ALONG SAID NORTH FACE, 27.56 FEET TO A POINT ON THE SOUTH LINE OF SAID NORTHWEST QUARTER;

THENCE NORTH 89 DEGREES 55 MINUTES 23 SECONDS WEST, ALONG SAID SOUTH LINE, 696.47 FEET TO THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER;

THENCE NORTH 00 DEGREES 04 MINUTES 30 SECONDS WEST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER, 15.00 FEET TO THE POINT OF BEGINNING.

Exhibit "B"

Property Located Within Reimbursement Area

Tax Parcel No.	Record Owner
301-84-069A	Qwest Corporation
301-84-001G	Chandler Arizona LP

Exhibit "C"

Satisfaction and Release

When recorded, return to:
City Clerk
City of Chandler
P. O. Box 4008, Mail Stop 606
Chandler, AZ 85244-4008

SATISFACTION AND RELEASE

The City of Chandler and Valley Christian Schools ("Developer") entered into an Agreement for Reimbursement of Offsite Construction Costs, Agreement Number _____, dated _____, recorded as Document No. ____ in the Official Records of Maricopa County, Arizona (the "Agreement"). The Agreement provided for the construction of certain improvements by Developer and authorized the reimbursement of a pro rata share of the cost of constructing those improvements to be paid by third parties benefitting from the improvements as provided under Chandler City Code Section 47-11.

City hereby acknowledges that _____ has satisfied all of its obligations under the Agreement, and hereby releases _____ from any further obligation under the Agreement.

ATTEST:

CITY OF CHANDLER, an Arizona municipal corporation

_____
Chandler City Clerk

By_____
Development Services Director

APPROVED AS TO FORM:

_____
Chandler City Attorney

STATE OF ARIZONA)
) ss.
County of Maricopa)

This Satisfaction and Release was acknowledged before me this ___ day of _____, 20__, by _____, on behalf of the City of Chandler.

_____
Notary Public

My commission expires:

_____

A.R.S. § 41-313(C) DISCLOSURES

Description of document this notarial certificate is being attached to:	
Type/Title	Satisfaction and Release
Date of Document	_____
Number of Pages	2
Add'l Signers (other than those named in the notarial certificate.)	None

EXHIBIT "E"
Deactivation Agreement

DEACTIVATION AGREEMENT

THIS DEACTIVATION AGREEMENT ("Agreement") is made and entered into by and between the CITY OF CHANDLER, an Arizona municipal corporation ("City") and the SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation ("SRP") effective on the last date on which the Parties complete execution of this Agreement. City and SRP each may be referred to separately in this Agreement as a "Party" or collectively as the "Parties".

WHEREAS, Valley Christian School proposes to improve the intersection of North 56th Street and West Galveston Street in the City of Chandler (the "Project"); and

WHEREAS, as part of the Project it is necessary to remove SRP irrigation delivery structure 7-2.7-40 (the "Facility") located within the intersection of North 56th Street and West Galveston Street in Section 28, Township 1 South, Range 4 East and;

WHEREAS, Valley Christian School will remove the Facility at its sole expense as a condition of CITY entering into this Agreement; and

WHEREAS, the Facility is not presently in service.

NOW, THEREFORE, in consideration of the mutual covenants and agreements set forth in this Agreement, the Parties agree as follows:

1. SRP shall abandon its use of the Facility.

2. CITY shall cause the removal of the Facility at Valley Christian School's sole expense.

3. If at any time, any shareholder entitled to irrigation delivery to the Facility demonstrates adequate capability to deliver irrigation water to the Facility at the shareholder's property, as reasonably determined by SRP, CITY shall, upon written request by SRP, provide an easement for and pay all costs associated with the design and construction of a replacement facility.

4. SRP shall design and construct the replacement facility, shall own and control the replacement facility, shall operate and maintain the facility at SRP's expense, and shall at all times hold CITY harmless for any loss or damage arising out of the design, construction, maintenance, or use of the replacement facility.

5. SRP agrees to comply with, and to require its employees and contractors to comply with, City Code requirements for work in City-owned right-of-way. SRP agrees to submit to City for review and comment SRP plans for design and construction related to replacement of the Facility, though SRP shall not require City approval or permit associated with facility construction.

6. All notices, demands or requests upon any Party to this Agreement shall be in writing delivered or sent by mail to the following:

To City:	Development Services Director City of Chandler 215 E. Buffalo Street Chandler, Arizona 85225
With a copy to:	Chandler City Attorney 175 S. Arizona Avenue, Second Floor Chandler, Arizona 85225
To SRP:	Salt River Project Water Engineering Mail Station: SSW303 P.O. Box 52025 Phoenix, Arizona 85072-2025

[Signatures on following page.]

IN WITNESS WHEREOF, City has caused this Agreement to be duly executed in its name and on its behalf by its Mayor and its seal to be duly affixed and attested by its City Clerk, and SRP has signed the same on the day and year as stated below.

CITY OF CHANDLER, an Arizona municipal corporation

By _____
Mayor Kevin Hartke

Date _____

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

SALT RIVER VALLEY WATER USERS' ASSOCIATION, an Arizona corporation

By *Kyle Tilghman*
Kyle J. Tilghman
Director Water Engineering & Transmission

Date *February 6, 2021*

CHANDLER arizona
Community of Innovation

City Council Memorandum **Development Services** **Memo No.** DS21-013

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Joshua H. Wright, Assistant City Manager Derek D. Horn, Development Services Director Louis Kneip, Development Engineering Manager
From:	Jason Richardson, Plan Review Manager
Subject:	PLT20-0024, Ferguson Enterprises MDC Final Plat
Request:	Final Plat Approval
Location:	Southeast corner of Queen Creek Road and Hamilton Street
Applicant:	Kirk Wall

Proposed Motion:

Move City Council approve Final Plat, PLT20-0024, Ferguson Enterprises MDC, located on the south side of Queen Creek Road, east of Hamilton Street, as recommended by Development Services Staff.

Background Data:

- Site is a single lot, 50.674 acres in size
- Zoned Planned Area Development (PAD), Planned Industrial (I-1)

Purpose:

The Council approved the zoning for industrial uses on November 7, 2019. The property owner is seeking Final Plat approval in order to construct an industrial building.

The final plat establishes the tract boundaries, and creates the easements and rights of way to be conveyed or dedicated as part of developing the site in substantial conformance with Council approved zoning.

Recommended Conditions of Approval

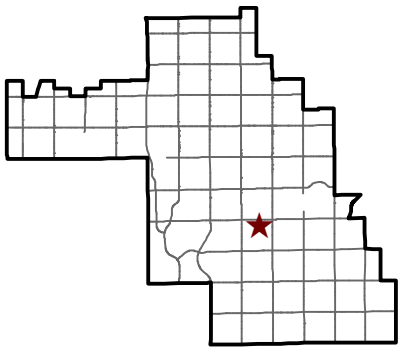
None

Attachments

Vicinity Map
Aerial Photo
Final Plat Exhibit

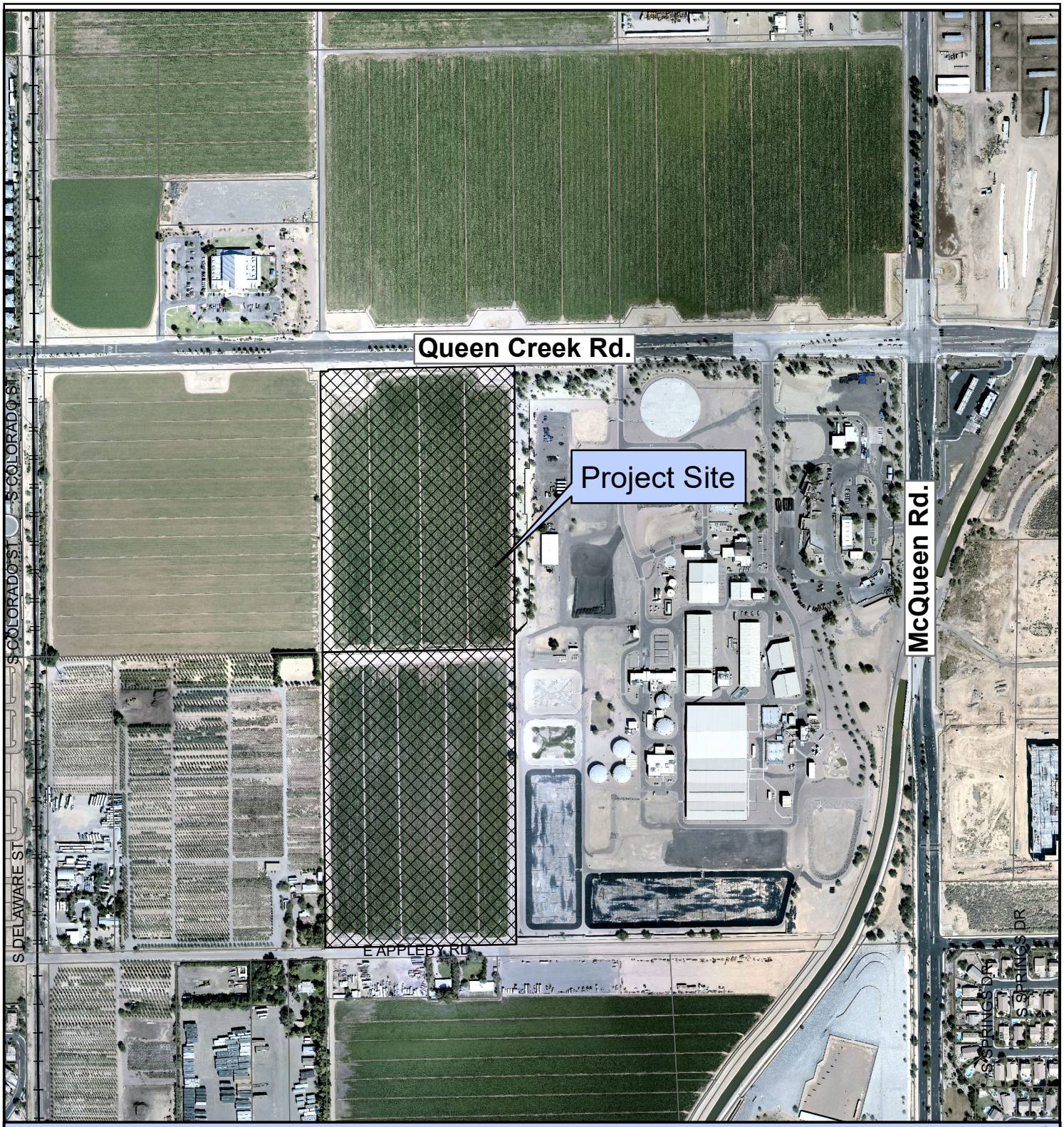
PLT20-0024 Ferguson Enterprises MDC (Final-Plat)

Project Details
Zoning Case-PLH19-0042 Ferguson Enterprises
48.3 Acres
Industrial



Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

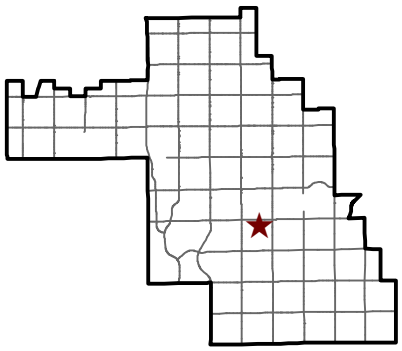


PLT20-0024 Ferguson Enterprises MDC (Final-Plat)

N

Project Details

Zoning Case-PLH19-0042 Ferguson Enterprises
48.3 Acres
Industrial



Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

FERGUSON ENTERPRISES MDC
A FINAL PLAT OF

A PORTION OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA.

SURVEY NOTES

1. This survey and the description used is based on a Commitment for Title Insurance issued by First American Title Insurance Company, Commitment Number NCS-947535B-MIA, dated February 14, 2020.
2. BASIS OF BEARING: The monument line of Mcqueen Road, also being the East line of the Northeast quarter of Section 15, using a bearing of South 00 degrees 00 minutes 00 seconds West, per the Boundary Survey, recorded in Book 620, Page 45, M.C.R.
3. The bearings and distances depicted indicate actual field or computed measurements performed during the course of this survey. This information may vary from documents of record used for this survey.
4. Construction within utility easements shall be limited to utilities, fences and driveways.
5. No structures or vegetation of any kind that would impede the flow of water through the easements may be constructed, planted or allowed to grow within drainage easements.
6. Visibility easement restrictions: Any object, wall, structure, mound or landscaping (mature) over 24" in height is not allowed within the visibility easement except trees trimmed to not less than 6' above the ground. Trees shall be spaced not less than 8' apart.
7. This property is within the Chandler Municipal Airport Potential Airport Influence Area and is subject to aircraft noise and overflight activity, and is encumbered by an avigation easement granted to the City of Chandler.

DEDICATION

STATE OF ARIZONA)
) SS.
COUNTY OF MARICOPA)

FERGUSON ENTERPRISES, LLC, AS OWNER, HAS SUBDIVIDED UNDER THE NAME, "FERGUSON ENTERPRISES MDC, A FINAL PLAT OF A PORTION OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN AND DIVIDED HEREON AND HEREBY PUBLISHES THIS FINAL PLAT AND HEREBY DECLARES THAT SAID FINAL PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE PARCELS, STREETS AND EASEMENTS CONSTITUTING SAME, AND THAT EACH LOT, AND STREET SHALL BE KNOWN BY THE NUMBER OR NAME GIVEN EACH RESPECTIVELY ON SAID FINAL PLAT.

EASEMENTS ARE DEDICATED AS SHOWN ON THIS PLAT. THE MAINTENANCE OF LANDSCAPING WITHIN THE PUBLIC RIGHT-OF-WAY TO BACK OF CURB SHALL BE THE RESPONSIBILITY OF THE ABUTTING PROPERTY OWNER.

FERGUSON ENTERPRISES, LLC, DOES HEREBY GRANT AND CONVEY TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION, AN EASEMENT FOR EMERGENCY VEHICULAR ACCESS ACROSS THE PROPERTY.

FERGUSON ENTERPRISES, LLC, DOES HEREBY GRANT AND CONVEY TO THE CITY OF CHANDLER, AN ARIZONA MUNICIPAL CORPORATION, AN EASEMENT FOR AVIGATION PURPOSES OVER AND ACROSS ALL LOTS, TRACTS AND PARCELS OF SAID SUBDIVISION IN CONNECTION WITH FLIGHTS FROM THREE HUNDRED FIFTY (350) FEET ABOVE THE SURFACE TO AN INFINITE HEIGHT ABOVE THE SAME, WHICH EASEMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE RIGHT OF FLIGHT OF AIRCRAFT OVER THE LAND, TOGETHER WITH ITS ATTENDANT NOISE, VIBRATIONS, FUMES, DUST, FUEL, AND LUBRICANT PARTICLES AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT OR TAKING OFF FROM OR OPERATING AT OR ON THE CHANDLER MUNICIPAL AIRPORT AND THE OWNER (GRANTOR) DOES FURTHER RELEASE AND DISCHARGE THE CITY, FOR THE USE AND BENEFIT OF THE PUBLIC AND AGENCIES OF THE CITY, OF AND FROM ALL LIABILITY AND ALL CLAIMS FOR DAMAGES OF ANY KIND TO PERSON PROPERTY THAT MAY ARISE AT ANY TIME IN THE FUTURE OVER OR IN CONNECTION WITH THE OWNER'S (GRANTOR'S) PROPERTY ABOVE THREE HUNDRED FIFTY (350) FEET, TO AN INFINITE HEIGHT ABOVE SAME, WHETHER SUCH DAMAGES SHALL ORIGINATE FROM NOISE, VIBRATION, FUMES, DUST, FUEL AND LUBRICANT PARTICLES, AND ALL OTHER EFFECTS THAT MAY BE CAUSED BY THE OPERATION OF AIRCRAFT LANDING AT, OR TAKING OFF FROM, OR OPERATING AT OR ON THE CHANDLER MUNICIPAL AIRPORT. THE GRANTING OF THIS AVIGATION EASEMENT AND RELEASE DOES NOT RELIEVE THE OWNER AND OPERATORS OF AIRCRAFT FROM LIABILITY FOR DAMAGES OR INJURY TO PERSONS OR PROPERTY CAUSE BY FALLING AIRCRAFT OR FALLING PHYSICAL OBJECTS FROM AIRCRAFT, EXCEPT AS STATED HEREIN WITH RESPECT TO NOISE, VIBRATION, FUMES, DUST, FUEL AND LUBRICANT PARTICLES.

THIS AVIGATION EASEMENT AND RELEASE SHALL BE BINDING UPON SAID OWNER (GRANTOR) AND THEIR HEIRS, ASSIGNS AND SUCCESSORS IN INTEREST TO ALL LOTS, TRACTS, AND PARCELS IN THE SAID SUBDIVISION AND THE STATEMENT OF RELEASE SHALL BE A COVENANT RUNNING WITH THE LAND.

IN WITNESS WHEREOF, FERGUSON ENTERPRISES, LLC, AS OWNER, HAS HEREUNDER CAUSED ITS NAME TO BE SIGNED AND THE SAME TO BE ATTESTED BY THE

SIGNATURE OF _____, ITS _____ THEREUNTO DULY AUTHORIZED THIS

_____ DAY OF _____, 20_____

_____
OWNER/AUTHORIZED SIGNER

ACKNOWLEDGMENT:

STATE OF _____)

COUNTY OF _____)

ON THIS _____ DAY OF _____, 20_____, BEFORE ME, THE UNDERSIGNED,

PERSONALLY APPEARED _____, WHO ACKNOWLEDGED SELF TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE INSTRUMENT WITHIN, AND WHO EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC DATE

MY COMMISSION EXPIRES:

_____, 20_____

PARENT PARCEL DESCRIPTION

THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THE FOLLOWING DESCRIBED EXCEPTION PARCELS A, B, C, D, E, F, G AND H;

EXCEPTION PARCEL A:
THAT PORTION CONSTITUTING THE CONSOLIDATED CANAL RIGHT OF WAY AS SET FORTH IN BOOK 215 OF MAPS, PAGE 8, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTION PARCEL B:
THAT PORTION OF SAID NORTHEAST QUARTER LYING EAST OF THE CONSOLIDATED CANAL RIGHT OF WAY AS SET FORTH IN BOOK 215 OF MAPS, PAGE 8, RECORDS OF MARICOPA COUNTY, ARIZONA;

EXCEPTION PARCEL C:
THAT PORTION CONVEYED TO THE CITY OF CHANDLER IN DOCUMENT NO 92-0734666, RECORDS OF MARICOPA COUNTY, ARIZONA DESCRIBED AS FOLLOWS;
THE EAST 1797.40 FEET OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THAT PORTION OF SAID NORTHEAST QUARTER LYING EASTERLY OF THE WESTERLY RIGHT OF WAY LINE OF THE CONSOLIDATED CANAL AS SET FORTH IN BOOK 215 OF MAPS, PAGE 8, RECORDS OF MARICOPA COUNTY, ARIZONA;
EXCEPT THE NORTH 33 FEET OF THE EAST 33 FEET; AND
EXCEPT THE SOUTH 25 FEET;

EXCEPTION PARCEL D:
THAT PORTION CONVEYED TO MARICOPA COUNTY IN DOCUMENT NO 2004-1147656, RECORDS OF MARICOPA COUNTY, ARIZONA DESCRIBED AS FOLLOWS;
A PORTION OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP TWO SOUTH, RANGE FIVE EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, BEING MORE PARTICULARLY DESCRIBED IN TWO PARCELS AS FOLLOWS:
PARCEL NO. 1:
THE SOUTH 47 FEET OF THE NORTH 80 FEET OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 15.
EXCEPT THE EAST 1,797.40 FEET THEREOF.
PARCEL NO. 2:
THE SOUTH 8 FEET OF THE NORTH 88 FEET OF THE WEST 35 FEET OF SAID NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 15.

EXCEPTION PARCEL E:
THAT PORTION CONVEYED TO MARICOPA COUNTY IN DOCUMENT NO. 2016-0321784, RECORDS OF MARICOPA COUNTY, ARIZONA, DESCRIBED AS FOLLOWS:
THE SOUTH 18 FEET OF THE FOLLOWING DESCRIBED PROPERTY:
THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THE EAST 1797.40 FEET OF SAID NORTHEAST QUARTER;

EXCEPTION PARCEL F:
THE NORTH 33.00 FEET OF THE EAST 33.00 FEET OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPTION AREA G:
THE NORTH 33.00 FEET OF NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THE EAST 1797.40 FEET THEREOF;

EXCEPTION AREA H:
THE 25.00 FEET OF THE EAST 1797.40 FEET OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THAT PORTION OF SAID NORTHEAST QUARTER LYING EASTERLY OF THE WESTERLY RIGHT OF WAY LINE OF THE CONSOLIDATED CANAL AS SET FORTH IN BOOK 215 OF MAPS, PAGE 8, RECORDS OF MARICOPA COUNTY, ARIZONA.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
A PORTION OF THE NORTHEAST QUARTER OF SECTION 15, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS;
COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 15, MONUMENTED WITH A BRASS CAP FLUSH, WHICH BEARS NORTH 89 DEGREES 21 MINUTES 37 SECONDS EAST 2625.57 FEET FROM THE CENTER OF SAID SECTION 15, MONUMENTED WITH A 1/2 INCH REBAR WITH NO I.D.;
THENCE ALONG THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 15, SOUTH 89 DEGREES 21 MINUTES 37 SECONDS WEST 1797.51 FEET TO A POINT ON THE WEST LINE OF THE EAST 1797.40 FEET OF THE NORTHEAST QUARTER OF SAID SECTION 15;
THENCE ALONG SAID WEST LINE, NORTH 00 DEGREES 00 MINUTES 00 SECONDS WEST 18.00 FEET TO A POINT ON A LINE 18.00 FEET NORTH OF AND PARALLEL WITH SAID SOUTH LINE, SAID POINT BEING THE POINT OF BEGINNING;
THENCE ALONG SAID PARALLEL LINE, SOUTH 89 DEGREES 21 MINUTES 37 SECONDS WEST 828.13 FEET TO A POINT ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 15;
THENCE ALONG LAST SAID WEST LINE, NORTH 00 DEGREES 14 MINUTES 19 SECONDS WEST 2541.46 FEET TO A POINT ON A LINE 88.00 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 15;
THENCE ALONG SAID PARALLEL LINE, NORTH 89 DEGREES 16 MINUTES 14 SECONDS EAST 35.00 FEET TO A POINT ON A LINE 35.00 FEET EAST OF AND PARALLEL WITH LAST SAID WEST LINE;
THENCE ALONG SAID PARALLEL LINE, NORTH 00 DEGREES 14 MINUTES 19 SECONDS WEST 8.00 FEET TO A POINT ON A LINE 80.00 FEET SOUTH OF AND PARALLEL WITH THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 15;
THENCE ALONG SAID PARALLEL LINE, NORTH 89 DEGREES 16 MINUTES 14 SECONDS EAST 803.76 FEET TO A POINT ON THE WEST LINE OF THE EAST 1797.40 FEET OF THE NORTHEAST QUARTER OF SAID SECTION 15;
THENCE ALONG LAST SAID WEST LINE, SOUTH 00 DEGREES 00 MINUTES 00 SECONDS WEST 2550.87 FEET TO THE POINT OF BEGINNING.

SHEET INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2	FINAL PLAT

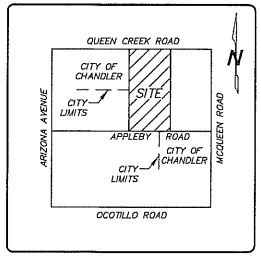
OWNER

FERGUSON ENTERPRISES, LLC
ADDRESS: 12500 JEFFERSON AVENUE,
NEWPORT NEWS, VA 23602
PHONE: (757) 989-2355
CONTACT: KIRK WALL
KIRK.WALL@FERGUSON.COM

REFERENCE DOCUMENTS

(R) R.O.S. PER BOOK 1134, PAGE 12, M.C.R.
(R1) R.O.S. PER BOOK 729, PAGE 32, M.C.R.
(R2) R.O.S. PER BOOK 1216, PAGE 43, M.C.R.
(R3) R.O.S. PER BOOK 589, PAGE 48, M.C.R.
(R4) R.O.S. PER BOOK 620, PAGE 45, M.C.R.
(R5) R.O.S. PER BOOK 1187, PAGE 46, M.C.R.
(R6) R.O.S. PER BOOK 1088, PAGE 41, M.C.R.
(R7) R.O.S. PER BOOK 1034, PAGE 3, M.C.R.
(R8) R.O.S. PER BOOK 1254, PAGE 21, M.C.R.
(R9) R.O.S. PER BOOK 1478, PAGE 43, M.C.R.

AREA TABLE	
LOT 1	AREA
GROSS	50.674 ACRES ± 2,207,342 SQ. FT.
NET	46.857 ACRES ± 2,041,076 SQ. FT.



VICINITY MAP

NOT TO SCALE

APPROVALS

This is to certify that in my opinion all lots, parcels and tracts shown on this Plat conforms to good land planning policies and are suitable for the purpose for which they are platted.

_____
Development Services Director Date

This is to certify that all engineering conditions and requirements of the City Code have been complied with and that this Plat is located within an area designated as having an assured water supply pursuant to Section 45-576, Arizona Revised Statutes.

_____
City Engineer Date

APPROVED BY THE COUNCIL OF THIS CITY OF CHANDLER, ARIZONA THIS_____

DAY OF _____, 20_____

_____
MAYOR Date

ATTEST:

_____
CITY CLERK Date

SURVEYOR'S STATEMENT

This is to certify that this Plat is correct and accurate and the monuments described herein have either been set or located as described to the best of my knowledge and belief.

G. BRYAN GOETZENBERGER R.L.S. 31020
7900 N. 70TH AVENUE, SUITE 104
GLENDALE, ARIZONA 85303
PHONE: 623-972-2200
EMAIL: contactus@azals.com

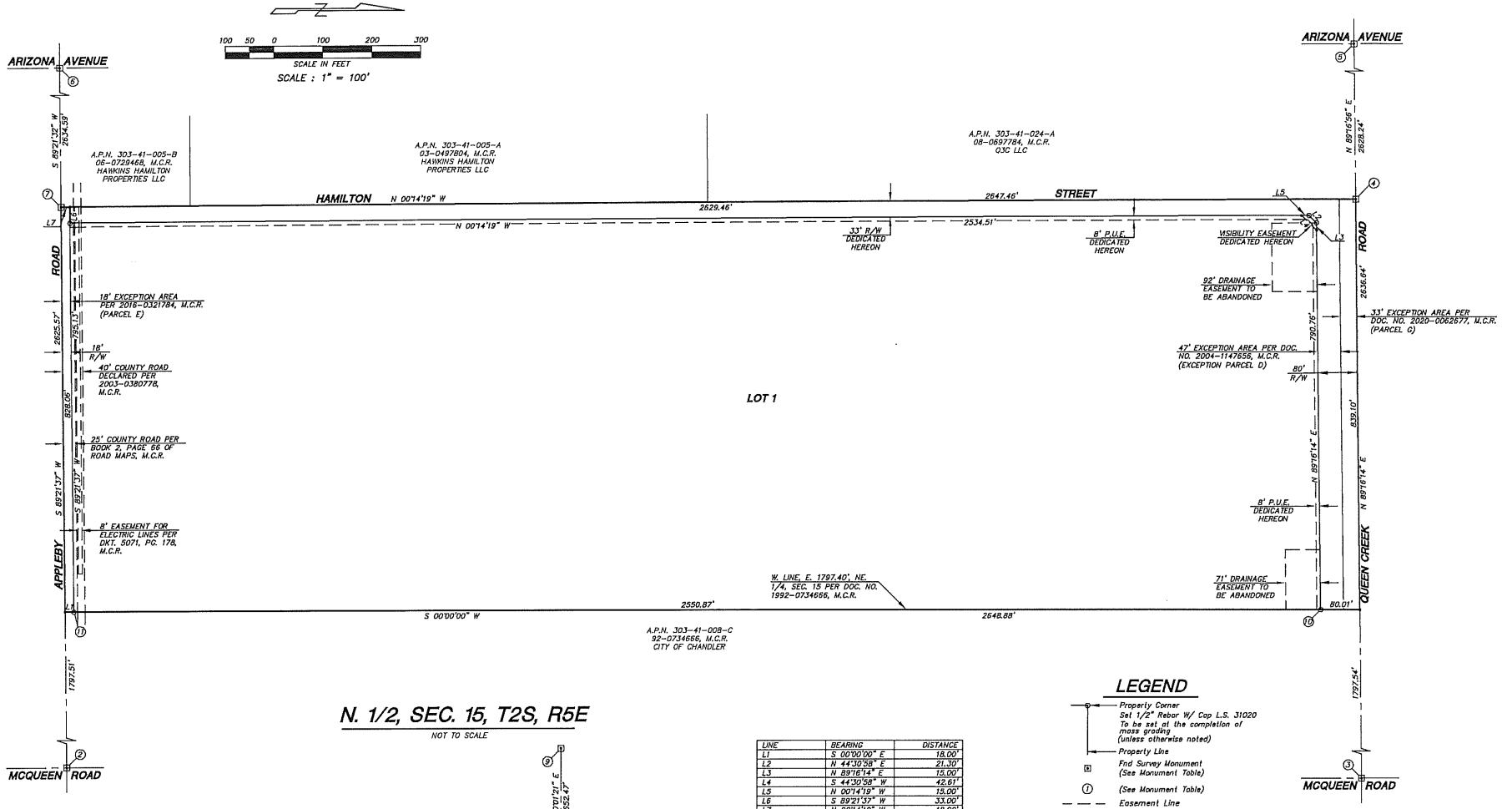
REGISTERED LAND SURVEYOR
CERTIFICATE NO.
31020
G. BRYAN GOETZENBERGER
10/2/20
ARIZONA U.S.A.

C.O.C. LOG NO. PLT20-0024

FINAL PLAT FOR
"FERGUSON ENTERPRISES MDC"

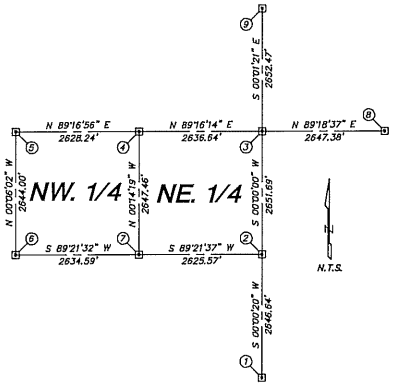
ALLIANCE LAND SURVEYING, LLC
7900 N. 70th AVENUE, SUITE 104
GLENDALE, AZ 85303
Phone: (623) 972-2200
contactus@azals.com
www.allianceslandsurveying.com

SHEET: 1 OF 2 | DATE: 10-2-20 | JOB NO.: 190256



N. 1/2, SEC. 15, T2S, R5E

NOT TO SCALE



LINE	BEARING	DISTANCE
L1	S 00°00'00" E	18.00'
L2	N 44°30'58" E	21.30'
L3	N 89°16'14" E	15.00'
L4	S 44°30'58" W	42.61'
L5	N 00°14'19" W	15.00'
L6	S 89°21'37" W	33.00'
L7	N 00°14'19" W	18.00'

MONUMENT TABLE	
(1)	SE. COR. SEC. 15 – FND BRASS CAP IN HANDHOLE
(2)	E. 1/4 COR. SEC. 15 – FND BRASS CAP FLUSH
(3)	NE. COR. SEC. 15 – NO MONUMENT FND OR SET – CALC'D POSITION PER BK. 589, PG. 48, M.C.R. – CORRESPONDS WITH SURVEYS OF RECORD
(4)	N. 1/4 COR. SEC. 15 – FND BRASS CAP IN HANDHOLE L.S. 33315
(5)	NW. COR. SEC. 15 – FND BRASS CAP IN HANDHOLE
(6)	W. 1/4 COR. SEC. 15 – FND BRASS CAP FLUSH
(7)	CEN. OF SEC. 15 – FND 1/2" REBAR NO I.D. 1.00' BELOW SURFACE
(8)	S. 1/4 COR. SEC. 11 – FND BRASS CAP FLUSH
(9)	W. 1/4 COR. SEC. 11 – FND BRASS CAP IN HANDHOLE
(10)	FND 1/2" REBAR W/CAP L.S. 31020 PER (R8)
(11)	FND 1/2" REBAR W/CAP L.S. 31020 PER (R9)

LEGEND

- Property Corner
  Set 1/2" Rebar W/ Cap L.S. 31020
  To be set at the completion of mass grading
  (unless otherwise noted)
- Property Line
- Fnd Survey Monument (See Monument Table)
- (1) (See Monument Table)
- Easement Line
- Monument Line
- (R) See Reference Documents
- P.U.E. Public Utility Easement
- M.C.R. Maricopa County Recorder

C.O.C. LOG NO. PLT20-0024

FINAL PLAT FOR
"FERGUSON ENTERPRISES MDC"

ALLIANCE
LAND SURVEYING, LLC
7900 N. 70th AVENUE, SUITE 104
GLENDALE, AZ 85303
Phone: (623) 972-2200
contactus@azalli.com
www.allianceslandsurveying.com

SHEET: 2 OF 2 | DATE: 10-2-20 | JOB NO: 190256

CHANDLER arizona
Community of Innovation

City Council Memorandum **Development Services Memo No.** DS21-012

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Joshua H. Wright, Assistant City Manager Derek D. Horn, Development Services Director
From:	Jason Richardson, Plan Review Manager
Subject:	PLT20-0025 Casadia Final Plat
Request:	Final Plat Approval
Location:	East side of McQueen Road, South of Chandler Heights Road
Applicant:	Nathan Larson (Bowman Consulting)

Proposed Motion:

Move City Council approve Final Plat, PLT20-0025, Casadia, located on the east side of McQueen Road, south of Chandler Heights Road, as recommended by Development Services Staff.

Background Data:

- Site is 5.0386 acres in size
- Zoned Planned Area Development District (PAD) for residential subdivision
- 13 proposed lots and 3 tracts

Purpose:

The Council approved the rezoning of the property to Planned Area Development (PAD) for a single-family residential subdivision on April 20, 2020. The current property owner is seeking to subdivide the parcel into 13 residential building lots to be sold and owned individually.

The final plat creates the lots, tracts, easements and rights of way to be conveyed or dedicated as part of developing the site in substantial conformance with the Council-approved rezoning.

Recommended Conditions of Approval

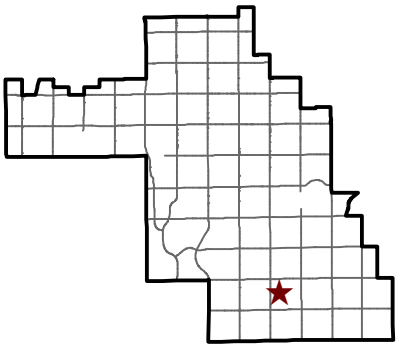
None

Attachments

Aerial
Vicinity Map
Exhibit

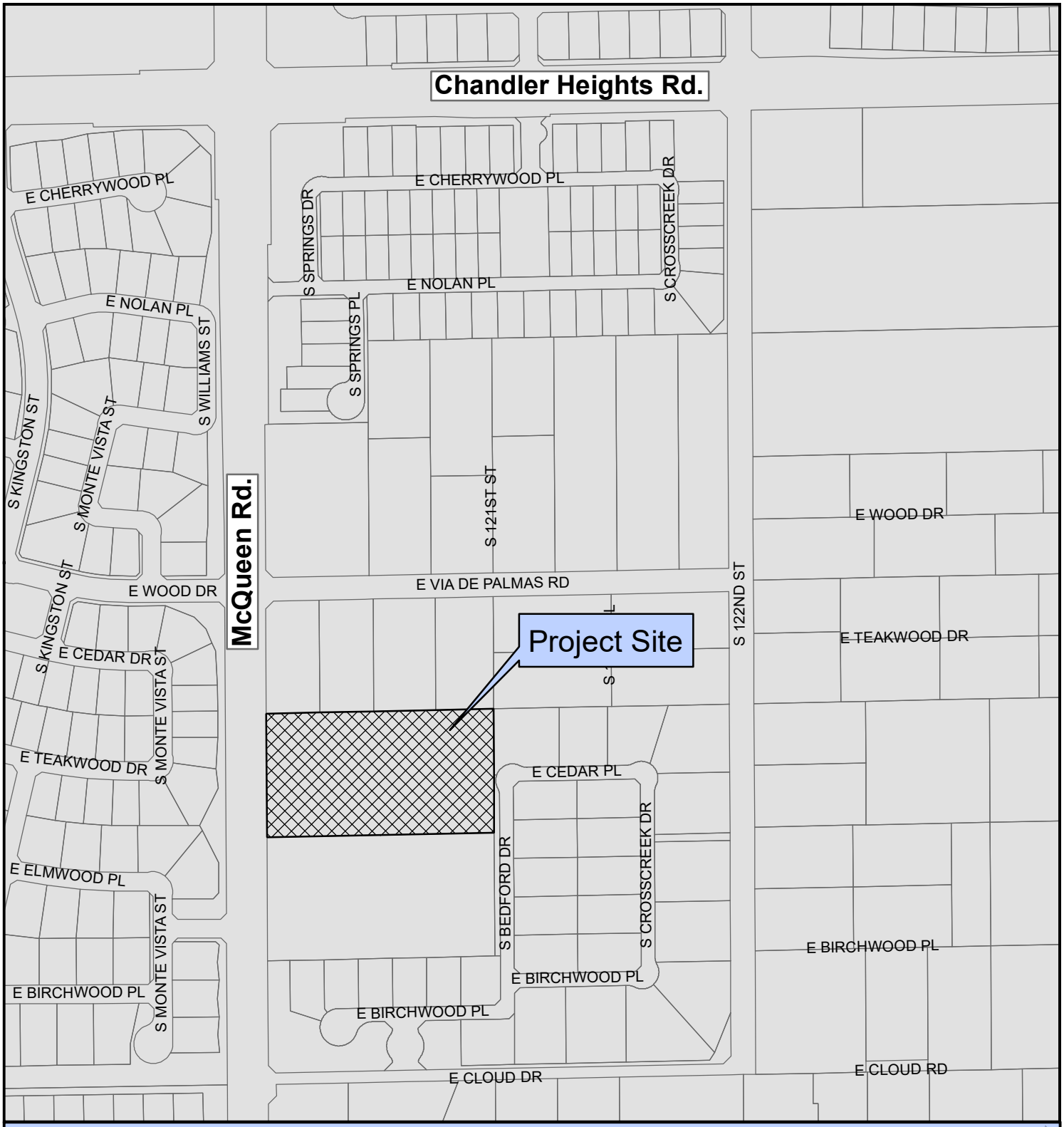
PLT20-0025 Casadia (Final Plat)

Proposed Project Details
Zoning Case-PLH19-0036 Casadia
4.62 Acres Future Single Family



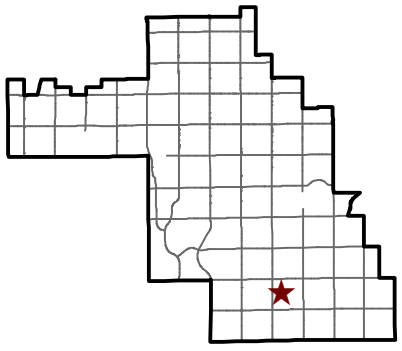
Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning



PLT20-0025 Casadia (Final Plat)

Proposed Project Details
Zoning Case-PLH19-0036 Casadia
4.62 Acres Future Single Family



Chandler Arizona
Where Values Make The Difference

City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

FINAL PLAT
CASADIA

A PORTION OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 5 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

DEDICATION

KNOW ALL MEN BY THESE PRESENTS:

MODERN LUXURY HOMES, LLC, AS OWNER, HAS SUBDIVIDED UNDER THE NAME OF "CASADIA", A PORTION OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 5 EAST, OF THE GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA, AS SHOWN PLATTED HEREON AND HEREBY PUBLISH THIS FINAL PLAT AS AND FOR THE PLAT OF SAID "CASADIA" AND HEREBY DECLARES THAT SAID FINAL PLAT SETS FORTH THE LOCATION AND GIVES THE DIMENSIONS OF THE LOTS, TRACTS, EASEMENTS AND STREETS CONSTITUTING SAME AND THAT EACH LOT, TRACT, EASEMENT AND STREET SHALL BE KNOWN BY THE NUMBER, LETTER OR NAME GIVEN TO EACH RESPECTIVELY ON SAID FINAL PLAT.

EASEMENTS ARE DEDICATED AS SHOWN ON THIS PLAT.

EASEMENTS FOR THE INSTALLATION, OPERATION AND FURNISHING OF MAINTENANCE OF PUBLIC UTILITY LINES AND FACILITIES, INCLUDING THE RIGHT OF INGRESS AND EGRESS FOR THE OPERATION AND MAINTENANCE OF SUCH UTILITY LINES AND FACILITIES, ARE DEDICATED AS SHOWN ON THIS PLAT. UTILITY PROVIDERS SHALL COMPLY WITH ANY APPLICABLE CODES, REGULATIONS, AND FRANCHISES OF THE CITY OF CHANDLER BEFORE ENTERING AN EASEMENT AND SHALL ASSUME FULL RESPONSIBILITY FOR THE CONSTRUCTION, OPERATION, MAINTENANCE AND REPAIR OF THEIR UTILITY LINES AND FACILITIES.

EMERGENCY VEHICULAR ACCESS EASEMENT ACROSS THE PROPERTY IS DEDICATED TO THE CITY OF CHANDLER.

RIGHT-OF-WAY IS DEDICATED TO THE CITY OF CHANDLER AS SHOWN ON THIS PLAT.

ALL PROPERTY, AMENITIES AND FACILITIES PROPOSED TO BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION ARE HEREWITH PLATTED AS COMMON PROPERTY.

TRACTS "A", "B", AND "C" ARE NOT DEDICATED TO THE PUBLIC, BUT ARE PLATTED AS COMMON PROPERTY FOR THE USE AND ENJOYMENT OF THE CASADIA COMMUNITY ASSOCIATION AS MORE FULLY SET FORTH IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS.

THE MAINTENANCE OF LANDSCAPING WITHIN THE PUBLIC RIGHT-OF-WAY TO BACK OF CURB SHALL BE THE RESPONSIBILITY OF THE CASADIA COMMUNITY ASSOCIATION OR ABUTTING PROPERTY OWNER.

THE MAINTENANCE OF LANDSCAPING WITHIN ALL TRACTS SHALL BE THE RESPONSIBILITY OF THE CASADIA COMMUNITY ASSOCIATION, AS MORE FULLY SET FORTH IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS. ALL TRACTS SHALL BE IMPROVED IN ACCORDANCE WITH APPROVED PLANS AND DEEDED TO THE CASADIA COMMUNITY ASSOCIATION AFTER PLAT RECORDATION.

IN WITNESS WHEREOF: CASADIA FAMILY PARTNERSHIP, AND PEBLER EQUITIES, LLC, AS OWNERS, HAVE HEREUNTO CAUSED THEIR NAMES TO BE AFFIXED AND THE SAME TO BE ATTESTED BY THE SIGNATURES OF THE OFFICERS LISTED BELOW, THEREUNTO DULY AUTHORIZED.

MODERN LUXURY HOMES, LLC

BY: _____
NAVEEN KALAGARA

ITS: _____

ACKNOWLEDGMENT

STATE OF ARIZONA }
} S.S.
COUNTY OF MARICOPA }

ON THIS _____ DAY OF _____, 2021, BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED NAVEEN CALAGARA, WHO ACKNOWLEDGED SELF TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE INSTRUMENT WITHIN, AND WHO EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC DATE

MY COMMISSION EXPIRES: _____

LIEN HOLDER RATIFICATION

KNOW ALL MEN BY THESE PRESENTS:

THAT THE UNDERSIGNED AS BENEFICIARY OF THAT CERTAIN DEED OF TRUST RECORDED IN DKT. NO. _____, RECORDS OF MARICOPA COUNTY RECORDER, MARICOPA COUNTY, ARIZONA, HEREBY RATIFIES, AFFIRMS, AND APPROVES THIS PLAT, THE DECLARATION OF RESTRICTION RECORDED CONCURRENTLY HEREWITH, AND EACH AND EVERY DEDICATION CONTAINED HEREIN.

IN WITNESS WHEREOF, THE UNDERSIGNED HAVE SIGNED THEIR NAMES THIS_____ DAY OF _____, 2021

BY: _____

ITS _____

ACKNOWLEDGMENT

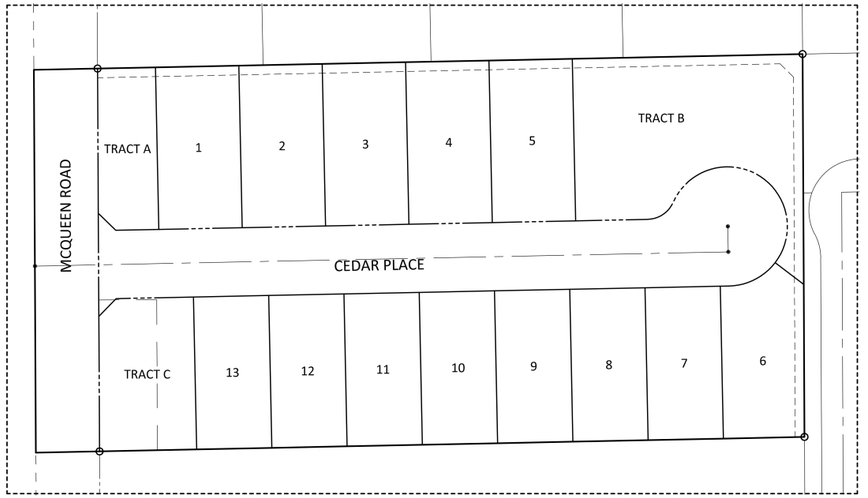
STATE OF ARIZONA }
} S.S.
COUNTY OF MARICOPA }

ON THIS _____ DAY OF _____, 2021, BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED _____, WHO ACKNOWLEDGED SELF TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE INSTRUMENT WITHIN, AND WHO EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

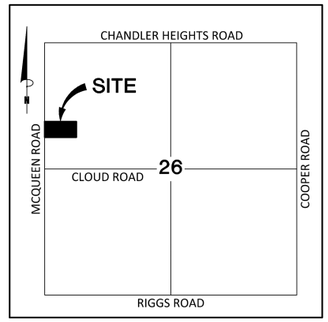
IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC DATE

MY COMMISSION EXPIRES: _____



KEY MAP
1" = 60'
(ALL ON SHEET 2)



VICINITY MAP
N.T.S.

SHEET INDEX

1 COVER, NOTES, DEDICATION, SITE DATA, BASIS OF BEARINGS, CERTIFICATIONS, LEGAL DESCRIPTION.
2 LOT AREA, TRACT AREA & USAGE TABLES, LINE & CURVE TABLES, FINAL PLAT PLAN SHEET.

SITE DATA

ZONING:	RU-43
NUMBER OF LOTS	13
GROSS AREA	219,481 SQ.FT. OR 5.0386 ACRES, MORE OR LESS
NET AREA	163,064 SQ.FT. OR 3.7434 ACRES, MORE OR LESS
MINIMUM LOT AREA	8,554 SQ.FT. OR 0.1964 ACRES, MORE OR LESS
MAXIMUM LOT AREA	10,080 SQ.FT. OR 0.3139 ACRES, MORE OR LESS
AVERAGE LOT AREA	9,239 SQ.FT. OR 0.2121 ACRES, MORE OR LESS

BASIS OF BEARINGS

NORTH 00 DEGREES 18 MINUTES 04 SECONDS WEST ALONG THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 5 EAST, OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA, ACCORDING TO BOOK 805 OF MAPS, PAGE 11, M.C.R.

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT THIS PLAT IS CORRECT AND ACCURATE AND THE MONUMENTS DESCRIBED HEREIN HAVE EITHER BEEN SET OR LOCATED AS DESCRIBED TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____ 1/13/21
DOUGLAS B. TONEY
REGISTERED LAND SURVEYOR NO. 55030
BOWMAN CONSULTING
1295 W. WASHINGTON STREET, #108
TEMPE, AZ 85281

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
55030
DOUGLAS B. TONEY
Date Signed 1/13/21
ARIZONA, U.S.A.

CITY OF CHANDLER CERTIFICATIONS

THIS IS TO CERTIFY THAT IN MY OPINION ALL LOTS, PARCELS, AND TRACTS SHOWN ON THIS PLAT CONFORM TO GOOD LAND PLANNING POLICIES AND ARE SUITABLE FOR THE PURPOSE FOR WHICH THEY ARE PLATTED.

_____ _____
DEVELOPMENT SERVICES DIRECTOR DATE

THIS IS TO CERTIFY THAT ALL ENGINEERING CONDITIONS AND REQUIREMENTS OF THE CITY CODE HAVE BEEN COMPLIED WITH AND THAT THIS SUBDIVISION IS LOCATED WITHIN AN AREA DESIGNATED AS HAVING AN ASSURED WATER SUPPLY PURSUANT TO SECTION 45-576, ARIZONA REVISED STATUTES.

_____ _____
CITY ENGINEER DATE

BY ACCEPTANCE OF THIS PLAT, THE CITY OF CHANDLER AGREES TO THE VACATION OR ABANDONMENT OF THE EASEMENTS DESCRIBED OR SHOWN HEREON AS BEING VACATED OR ABANDONED.

APPROVED BY THE COUNCIL OF THE CITY OF CHANDLER, ARIZONA THIS DAY _____ OF _____ 2021.

BY: _____ _____
MAYOR DATE

ATTEST: _____ _____
CITY CLERK DATE

OWNER/DEVELOPER

MODERN LUXURY HOMES, LLC
2371 E. CHERRYWOOD PLACE
CHANDLER, AZ 85249
PH: 480.652.4455
CONTACT: NAVEEN KALAGARA
EMAIL: naveen@aznaveen.com

DEVELOPER

PEBLER EQUITIES, LLC
2141 E. BROADWAY ROAD #101
TEMPE, AZ 85282
PH: 480.321.8149
CONTACT: ZACHARY PEBLER
EMAIL: zapebler@aol.com

ENGINEER

BOWMAN CONSULTING
1295 W. WASHINGTON ST.
SUITE: 108
TEMPE, AZ 85281
PH: 480.629.8830
CONTACT: NATHAN LARSON
EMAIL: nlarson@bowmancg.com

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED CHANDLER, IN THE COUNTY OF MARICOPA, STATE OF ARIZONA, AND IS DESCRIBED AS FOLLOWS:

THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

EXCEPT THE WEST 33 FEET THEREOF;

EXCEPT ANY PORTION DESCRIBED IN FINAL ORDER OF CONDEMNATION RECORDED AUGUST 28, 2015 IN RECORDING NO. 2015-627762, RECORDS OF MARICOPA COUNTY, ARIZONA.

COMMUNITY ASSOCIATION RATIFICATION

BY THIS RATIFICATION _____, DULY ELECTED PRESIDENT OF THE THE CASADIA COMMUNITY ASSOCIATION, ACKNOWLEDGES THE RESPONSIBILITIES IDENTIFIED HEREON.

_____
SIGNATURE DATE

ACKNOWLEDGMENT

STATE OF ARIZONA }
} S.S.
COUNTY OF MARICOPA }

ON THIS _____ DAY OF _____, 2021, BEFORE ME, THE UNDERSIGNED, PERSONALLY APPEARED _____ WHO ACKNOWLEDGED SELF TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE INSTRUMENT WITHIN, AND WHO EXECUTED THE FOREGOING INSTRUMENT FOR THE PURPOSES THEREIN CONTAINED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND OFFICIAL SEAL.

_____ _____
NOTARY PUBLIC DATE

MY COMMISSION EXPIRES: _____

NOTES

1. CONSTRUCTION WITHIN UTILITY EASEMENTS SHALL BE LIMITED TO UTILITIES, FENCES AND DRIVEWAYS.
2. NO STRUCTURES OR VEGETATION OF ANY KIND THAT WOULD IMPEDE THE FLOW OF WATER THROUGH THE EASEMENTS MAY BE CONSTRUCTED, PLANTED OR ALLOWED TO GROW WITHIN DRAINAGE EASEMENTS.
3. IN EASEMENTS FOR THE EXCLUSIVE USE OF WATER, SANITARY SEWER, RECLAIMED WATER OR ANY COMBINATION THEREOF, ONLY GROUND COVER AND BUSHES ARE ALLOWED TO BE PLANTED WITHIN THE EASEMENT AREA. NO TREES ARE ALLOWED.
4. ALL UTILITIES AND ELECTRIC LINES ARE TO BE INSTALLED UNDERGROUND.
5. ALL INDIVIDUAL LOT PROPERTY CORNERS SHALL BE SET WITH 1/2" REBAR AND CAP OR TAG BEARING THE REGISTRATION NUMBER OF THE SURVEYOR RESPONSIBLE FOR THEIR PLACEMENT. PROPERTY CORNERS WILL BE SET AT COMPLETION OF MASS GRADING.
6. VISIBILITY EASEMENT RESTRICTIONS: ANY OBJECT, WALL, STRUCTURE, MOUND OR LANDSCAPING (MATURE) OVER 24" IN HEIGHT IS NOT ALLOWED WITHIN THE VISIBILITY EASEMENT EXCEPT TREES TRIMMED TO NOT LESS THAN 6' ABOVE THE GROUND. TREES SHALL BE SPACED NOT LESS THAN 8' APART.
7. ACCORDING TO THE FLOOD INSURANCE RATE MAP #04013C3102M, DATED NOVEMBER 4, 2015 THIS PROPERTY IS LOCATED IN FLOOD ZONE "X": AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
8. ALL TRACTS THAT WILL NOT BE CONVEYED TO THE CITY OF CHANDLER AND ALL COMMON PROPERTY SHALL BE IMPROVED IN ACCORDANCE WITH PLANS APPROVED THE CITY OF CHANDLER AND SHALL BE CONVEYED BY WARRANTY (OR SPECIAL WARRANTY) DEED TO THE CASADIA COMMUNITY ASSOCIATION. THE CASADIA COMMUNITY ASSOCIATION SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE COMMON PROPERTY.
9. THIS PROPERTY IS SUBJECT TO THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR CASADIA COMMUNITY ASSOCIATION.
10. LOT AND TRACT MONUMENTS TO BE SET AT COMPLETION OF MASS GRADING.

C.O.C. LOG NO.: PLT20-0025

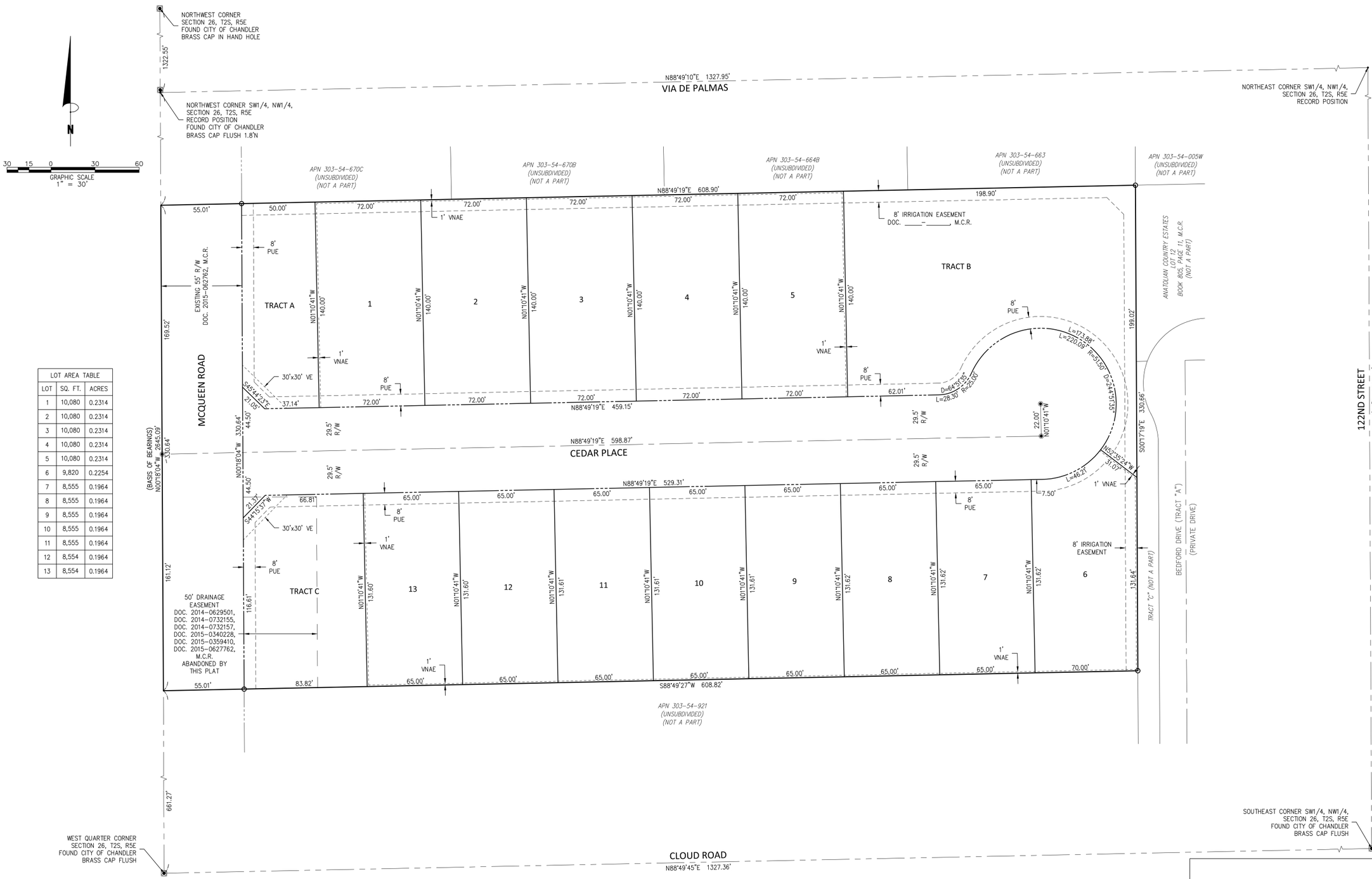
Bowman CONSULTING
Bowman Consulting Group, Ltd.
1295 W Washington Street, #108
Tempe, AZ 85281
Phone (480) 629-8830
Fax (480) 629-8841
www.bowmanconsulting.com

FINAL PLAT
CASADIA
CHANDLER, ARIZONA

© Bowman Consulting Group, Ltd.

DATE: 1/13/21
PROJ NO: 050602-01
TASK NUM: 001
DRAWN BY: TL
CHECKED: DT
QUALITY: NL
CLIENT NO:
SCALE
N.T.S.

File: C:\Temp\AcPublish_23452\050602-Casadia-Plat.dwg Plotted: Jan 13, 2021



LOT AREA TABLE		
LOT	SQ. FT.	ACRES
1	10,080	0.2314
2	10,080	0.2314
3	10,080	0.2314
4	10,080	0.2314
5	10,080	0.2314
6	9,820	0.2254
7	8,555	0.1964
8	8,555	0.1964
9	8,555	0.1964
10	8,555	0.1964
11	8,555	0.1964
12	8,554	0.1964
13	8,554	0.1964

TRACT AREA TABLE			
TRACT	SQ. FT.	ACRES	DESCRIPTION
TRACT A	7,038	0.1616	LANDSCAPE, OPEN SPACE, RETENTION
TRACT B	25,137	0.5771	LANDSCAPE, OPEN SPACE, RETENTION
TRACT C	10,786	0.2476	LANDSCAPE, OPEN SPACE, RETENTION

LEGEND

◙	SECTION MONUMENT (AS NOTED)	- - - - - - - -	EASEMENT LINE (AS NOTED)
◉	MONUMENT TO BE SET PER MAG STANDARDS	- - - - - - - -	EASEMENT LINE (AS NOTED)
○	SET REBAR WITH CAP RLS 55030	——— - - ———	RIGHT-OF-WAY
M.C.R.	MARICOPA COUNTY RECORDER	———	LOT/TRACT LINE
PUE	PUBLIC UTILITY EASEMENT	——— – ———	ROADWAY MONUMENT LINE
R/W	RIGHT-OF-WAY	———	SUBDIVISION BOUNDARY
VE	VISIBILITY EASEMENT	——— – – ———	SECTION LINE
VNAE	VEHICULAR NON-ACCESS EASEMENT		

NOTE: LOT AND TRACT MONUMENTS TO BE SET AT COMPLETION OF MASS GRADING.

C.O.C. LOG NO.: PLT20-0025

Bowman CONSULTING
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1295 W Washington Street, #108
Tempe, AZ 85281
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Fax (480) 629-8841
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REGISTERED LAND SURVEYOR
CERTIFICATE NO.
55030
DOUGLAS B. TONEY
Date Signed 1/13/21
ARIZONA U.S.A.

FINAL PLAT
CASADIA
CHANDLER, ARIZONA

© Bowman Consulting Group, Ltd.

DATE:	1/13/21
PROJ NO:	050602-01
TASK NUM:	001
DRAWN BY:	TL
CHECKED:	DT
QUALITY:	NL
CLIENT NO:	
SCALE	N.T.S.

File: C:\Temp\VuPallah_23452\050602-Casadia-Plat.dwg Plotted: Jan 13, 2021

ITEM 9

City Council Memorandum **Facilities and Fleet** **Memo No.** N/A

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Debra Stapleton, Assistant City Manager
From:	Mike Hollingsworth, Facilities & Fleet Manager
Subject:	Purchase of HVAC Equipment, Installation and Services

Proposed Motion:

Move City Council approve the utilization of Omnia Partners Contracts, No. R200403 with TDIndustries, Inc., Contract No.R200402 with Johnson Controls, Inc., Contract No.R200401 with Daikin Applied Americas, Inc., and Contract No. 15-JLP-023 with Trane U.S. Inc., for the purchase of HVAC equipment, installation and services, in an amount not to exceed $815,000.

Background/Discussion:

The Building and Facilities Division frequently uses outside vendors for repair and maintenance of Heat, Ventilation and Cooling (HVAC) equipment. This agreement will provide the City with multiple contractors for scheduled, preventive and emergency HVAC repairs throughout the City. Building and Facilities will use this agreement for emergency repairs, and or replacement of packaged units, chillers, boilers and other related HVAC equipment located throughout the City. This will reduce the premature failure of the equipment during peak demand and provide optimum energy efficiency.
In addition, Public Works & Utilities Department will utilize this agreement for emergency repairs, and or replacement of packaged units, chillers, boilers and other related HVAC equipment at various locations throughout the Department.

Evaluation:

The City makes use of contracts available cooperatively through several agencies. Omnia Partners competitively solicited and awarded a contract for HVAC equipment, installation and services to TDIndustries, Inc., Johnson Controls, Inc., Daikin Applied Americas, Inc., and Trane U.S. Inc. The City has a current Intergovernmental Agreement with Omnia Partners, allowing for cooperative use of their contracts. Staff recommends cooperative use of these contracts based on price, quality of product, services and warranty provided.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
605.3840.5410	Water Operating	N/A	$20,000	N
605.3860.5410	Water Systems Maintenance	N/A	$50,000	N

605.3830.5410	Water Treatment Plant	N/A	$50,000	N
615.3940.5410	Water Operating	N/A	$20,000	N
615.3960.5410	Wastewater Operating	N/A	$120,000	N
616.3930.5410	Wastewater Industrial	N/A	$30,000	N
615.3970.5410	Wastewater Operating	N/A	$35,000	N
401.3210.6211.6BF628	Capital Projects	Existing City Building Renovations	$200,000	Y
101.3200.5316	General Fund	N/A	$250,000	N
615.3900.5219	Wastewater Operating	N/A	$40,000	N

CHANDLER arizona
Community of Innovation

City Council Memorandum **Facilities and Fleet** **Memo No.** N/A

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Debra Stapleton, Assistant City Manager
From: Mike Hollingsworth, Facilities & Fleet Manager
Subject: Agreement No. BF9-910-4013, Amendment No. 1, with Rycon Industries, Inc., dba Skyline Window Cleaning for Window Washing Services

---

Proposed Motion:

Move City Council approve Agreement No. BF9-910-4013, Amendment No. 1, with Rycon Industries, Inc., dba Skyline Window Cleaning, for window washing services, in an amount not to exceed $60,000, for a one-year term, February 1, 2021, through January 31, 2022.

Background/Discussion:

Building and Facilities is responsible for the window cleaning and power washing of entry points at City buildings. The City Hall tower windows require specialized equipment and personnel certifications. The windows are typically cleaned every three months but can be more frequent depending on the facility, use, and environmental conditions.

Evaluation:

On January 24, 2019, City Council approved an agreement with Rycon Industries, Inc., dba Skyline Window Cleaning, for window washing services, for a one-year period, with the option of up to four (4) additional one-year extensions. The contractor has agreed to extend for one additional year at the same terms, conditions and an overall price increase of 2% that City staff finds to be fair and reasonable.

Staff recommends extension of this agreement for the term of February 1, 2021, through January 31, 2022. This is the first extension of the original agreement.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
101.3200.5410	General Fund	N/A	$60,000	N

Attachments

Amendment to Agreement No. BF9-910-4013

CHANDLER arizona

City Clerk Document No. _____

City Council Meeting Date: February 25, 2021

AMENDMENT TO CITY OF CHANDLER AGREEMENT
WINDOW WASHING SERVICES
CITY OF CHANDLER AGREEMENT NO. BF9-910-4013

THIS AMENDMENT NO. 1 (Amendment No. 1) is made and entered into by and between the City of Chandler, an Arizona municipal corporation (City), and Rycon Industries, Inc., dba Skyline Window Cleaning (Contractor), (City and Contractor may individually be referred to as Party and collectively referred to as Parties) and made _____, 20___ (Effective Date).

RECITALS

WHEREAS, the Parties entered into an agreement for window washing services (Agreement); and

WHEREAS, the term of the Agreement was February 1, 2019, through January 31, 2021, with the option of up to four one-year extensions; and

WHEREAS, the Parties wish to exercise the first option through this Amendment to extend the Agreement for one year.

AGREEMENT

NOW THEREFORE, the Parties agree as follows:

1. The recitals are accurate and are incorporated and made a part of the Agreement by this reference.

2. Section 4, Price is amended to read as follows: The City will pay the Contractor the per unit cost set forth in Revised Exhibit B of the original Agreement, attached to and made a part of this Amendment No. 1. Total payments made to the Contractor during the term of this Amendment No. 1 will not exceed $60,000.

3. Section 5, Term is amended to read as follows: The Agreement is extended for a one-year period February 1, 2021, through January 31, 2022.

4. All other terms and conditions of the Agreement remain unchanged and in full force and effect. If a conflict or ambiguity arises between this Amendment No. 1 and the Agreement, the terms and conditions in this Amendment No. 1 prevail and control.

IN WITNESS WHEREOF, the Parties have entered into this Amendment on the Effective Date.

FOR THE CITY

By: _____

Its: Mayor

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
City Clerk

FOR THE CONTRACTOR

By: _____

Its: Chris Kubolek - owner

REVISED EXHIBIT B
PRICE PROPOSAL PAGE

LOT A: WINDOW WASHING VARIOUS CITYWIDE LOCATIONS

ITEM	LOCATION	FREQ.	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
1.	Chandler Center for the Arts 250 N. Arizona Ave.	Bi-Monthly (2-day advance notice)	Exterior / Interior	$325.00	6	$1,950.00
2.	Parks & Facilities Maint. Facility 540 E Ryan Rd	Semi-Annually	Exterior / Interior	$125.00	2	$250.00
3.	Chandler Municipal Courts 200 E Chicago St	Semi-Annually (escort required)	Exterior / Interior	$1,000.00	2	$2,000.00
4.	Police Headquarters 250 E Chicago St	Quarterly (escort required)	Exterior / Interior	$1,350.00	4	$5,400.00
5.	Fire Admin Building 151 E Boston St	Quarterly (escort required)	Exterior / Interior	$900.00	4	$3,600.00
6.	Community Center/Sr. Center 125 E Commonwealth	Quarterly	Exterior / Interior/ Skylights / Canopies/ Walkway/blow off leaves	$960.00	4	$3,840.00
7.	Information Technology 275 E Buffalo	Semi-Annually	Exterior / Interior	$160.00	2	$320.00
8.	Public Works and Utilities and Development Services Admin 215 E Buffalo	Semi-Annually	Exterior / Interior	$200.00	2	$400.00
9.	Downtown Library 22 S Delaware	Quarterly (before 9 a.m.)	Exterior / Interior	$1,180.00	4	$4,720.00
9a.	Downtown Library Rotunda Partition Glass	Annual	Clean interior/exterior glass of rotunda, window ledges and dust art piece. Both sides of glass	$560.00	1	$560.00

10	Sunset Branch Library 4930 W Ray Rd**	Quarterly (before 9 a.m.)	Exterior / Interior	$135.00	4	$540.00
11.	McCullough – Price House 300 S. Chandler Village Dr.	Semi-Annually	Exterior	$90.00	2	$180.00
12.	Council Chambers 88 E. Chicago	Quarterly	Exterior / Interior	$375.00	4	$1,500.00
12a.	Council Chambers-Clouded Glass Wrapping	Quarterly	Interior	$450.00	4	$1,800.00
13.	Chandler Museum 330 S. Chandler Village Dr.	Quarterly	Exterior / Interior	$135.00	4	$540.00
14.	Vision Gallery / Utilities/City Hall Lobby and Hallway 10 E. Chicago St.	Monthly	Exterior / Interior	$115.00	12	$1,380.00
15.	Neighborhood Services 235 S. Arizona Ave.	Quarterly	Exterior / Interior	$120.00	4	$480.00

LOT A: WINDOW WASHING VARIOUS CITYWIDE LOCATIONS continued

ITEM #	LOCATION	FREQ.	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
16.	CAPA / Print Shop 210 S. Washington St.	Quarterly	Exterior / Interior	$55.00	4	$220.00
17.	Tumbleweed Recreation Center (all areas) 745 E Germann Rd	Semi-Annually	Exterior	$1,080.00	2	$2,160.00
18.	Tumbleweed Recreation Center (all classrooms) 745 E Germann Rd	Monthly	Interior	$50.00	12	$600.00
19.	Tumbleweed Recreation Center (Front Entry / Courtyard Glass) 745 E Germann Rd	Monthly	Exterior / Interior (includes glass in	$225.00	12	$2,700.00

			courtyard to the ceiling.)			
20.	Snedigar Recreation Center 4500 S Basha Rd	Quarterly	Exterior / Interior	$60.00	4	$240.00
21.	Environmental Education Center 4050 E Chandler Heights Rd	Quarterly	Exterior / Interior	$110.00	4	$440.00
22.	Desert Breeze Police Sub-Station 251 N Desert Breeze Blvd	Quarterly	Exterior / Interior	$150.00	4	$600.00
23.	Chandler Heights Police Sub-Station 4040 E Chandler Heights Rd	Quarterly	Exterior / Interior	$120.00	4	$480.00
24.	Fire and Public Training Facility (Bldgs A, B,D & H) 3550 S Dobson Rd Bldg B	Quarterly	Exterior / Interior	$900.00	4	$3,600.00
25.	Chandler Boys & Girls Club 300 E Chandler Blvd	Semi-Annually	Exterior / Interior	$175.00	2	$350.00
26.	Tumbleweed Tennis Center 2250 S. McQueen Rd.	Quarterly	Exterior / Interior	$175.00	4	$700.00
27.	Streets/Traffic Building 975 E. Armstrong Way Buildings B and C	Quarterly	Exterior / Interior	$75.00	4	$300.00
28.	Fleet/Warehouse 975 E. Armstrong Way	Quarterly	Exterior / Interior	$70.00	4	$280.00
29.	Public Safety Building 911 S. Hamilton St.	Quarterly	Exterior / Interior	$55.00	4	$220.00

EXHIBIT B – PRICING CONTINUED
VARIOUS CITYWIDE LOCATIONS

LOT A: WINDOW WASHING MUNICIPAL AIRPORT

ITEM #	LOCATION	FREQ.	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
30.	Airport Terminal 2380 S Stinson Way	Quarterly	Exterior / Interior	$140.00	4	$560.00
31.	Airport Tower 2380 S Stinson Way	Quarterly	Exterior / Interior	$135.00	4	$540.00

LOT A: WINDOW WASHING MUNICIPAL UTILITIES

ITEM #	LOCATION	FREQ.	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
32.	Municipal Utilities Administration 975 E Armstrong Way Bldg L	Quarterly	Exterior & Interior	$70.00	4	$280.00
33.	Meter Services 975 E Armstrong Way Bldg O	Quarterly	Exterior & Interior	$45.00	4	$180.00
34.	Water Distribution Bldg 975 E Armstrong Way Bldg K	Quarterly (escort required)	Exterior & Interior	$70.00	4	$280.00
35.	Wastewater Collections 975 E Armstrong Way Bldg J	Quarterly (escort required)	Exterior & Interior	$70.00	4	$280.00
36.	Water Treatment Plant 1475 E Pecos Rd	Quarterly	Exterior & Interior (includes glass staircase)	$130.00	4	$520.00
37.	Airport WRF Administration, Maintenance and Thickening Bldgs 905 E Queen Creek Rd	Quarterly	Exterior & Interior	$145.00	4	$580.00

38.	Solid Waste Services area 955 E Queen Creek Rd	Quarterly (escort required)	Exterior & Interior	$98.00	4	$392.00
39.	Ocotillo Water Reclamation Facility 3333 S. Old Price Rd.	Quarterly	Exterior & Interior	$88.00	4	$352.00

LOT B: WINDOW WASHING CITY HALL

ITEM #	LOCATION	FREQ.	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
40.	City Hall – Tower 175 S. Arizona Ave.	Semi-Annually	Exterior / Interior	$2,700.00	2	$5,400.00
41.	City Hall-Tower Sun Visors 175 S. Arizona Ave	Semi-Annually	Exterior	$715.00	2	$1,430.00

LOT C POWER WASHING OF DOOR ENTRY POINTS AT FOLLOWING LOCATIONS: Includes area directly in front of all building doorways, including ceilings, but does not extend 10' past these doors.

ITEM #	LOCATION	WORK AREA	PRICE (per cleaning)	QTY	EXTENDED PRICE
1.	Parks & Facilities Maint. Facility 540 E Ryan Rd	Door Entry Points	$25.00	2	$50.00
2.	Police Headquarters 250 E Chicago St	Door Entry Points	$50.00	2	$100.00
3.	Fire Admin Building 151 E Boston St	Door Entry Points	$50.00	2	$100.00
4.	Community Center/Sr. Center 125 E Commonwealth	Door Entry Points	$75.00	2	$150.00
5.	Information Technology 275 E Buffalo	Door Entry Points	$50.00	2	$100.00
6.	Transportation and Public Works and Utilities and Development Services Admin 215 E Buffalo	Door Entry Points	$50.00	2	$100.00
7.	Downtown Library 22 S Delaware	Door Entry Points	$25.00	2	$50.00

8.	Sunset Branch Library 4930 W Ray Rd**	Door Entry Points	$25.00	2	$50.00
9.	Tumbleweed Recreation Center (all areas) 745 E Germann Rd	Door Entry Points	$25.00	2	$50.00
10.	Environmental Education Center 4050 E Chandler Heights Rd	Door Entry Points	$50.00	2	$100.00
11.	Desert Breeze Police Sub-Station 251 N Desert Breeze Blvd	Door Entry Points	$25.00	2	$50.00
12.	Chandler Heights Police Sub-Station 4040 E Chandler Heights Rd	Door Entry Points	$50.00	2	$100.00
13.	Chandler Boys & Girls Club 300 E Chandler Blvd	Door Entry Points	$25.00	2	$50.00
14.	Snedigar Recreation Center 4500 Alma School Rd.	Door Entry Points	$25.00	2	$50.00

CHANDLER arizona
Community of Innovation

City Council Memorandum **Information Technology** **Memo No.** N/A

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Debra Stapleton, Assistant City Manager Sandip Dholakia, Chief Information Officer
From:	Rachelle Faherty, IT Applications Manager
Subject:	Enterprise License Agreement with ESRI

Proposed Motion:

Move City Council approve Agreement No. 4289 with Environmental Systems Research, Inc. (ESRI) for an enterprise license for Geographic Information System (GIS) software in the amount of $480,000 for a three-year period beginning March 12, 2021, through March 11, 2024, payable on an annual basis.

Background/Discussion:

The City's Geographic Information System (GIS) is based on ESRI GIS products. The City's GIS allows staff, citizens and business partners the ability to view City data in a spatial manner related to its physical location within the City. Since 2009, the City has had an Enterprise License Agreement with ESRI which allows City departments to deploy GIS software products as needed to support City services. The GIS advisory Committee considers each request for additional software installations to determine validity and monitors software installed to not adversely affect future costs of the licensing agreement.

Recently, ESRI changed their pricing model and moved the City of Chandler to a Small Enterprise Government Agreement. This change simply moves the City into a different customer category. The City will continue to receive the same support and benefits experienced under the prior licensing arrangement.

Evaluation:

ESRI is the sole provider of their GIS products and the City's GIS system is based on the ESRI GIS products. The enterprise license agreement includes products, annual maintenance and user conference registrations and is only available from ESRI. The Enterprise License Agreement provides for a lower cost per unit for the software, reduces administrative expenses and allows flexibility to deploy software products throughout the City when and where they are needed.

Financial Implications:

The annual cost for each of the three years is as follows:

Year One	$150,000	March 12, 2021 - March 11, 2022
Year Two	$165,000	March 12, 2022 - March 11, 2023
Year Three	$165,000	March 12, 2023 - March 11, 2024

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
101.1200.5419	General Fund	N/A	$480,000	N

Attachments

4289 License Agreement

Esri Use Only:
Cust. Name _____
Cust. # _____
PO # _____
Esri Agreement # _____

THE SCIENCE OF WHERE

SMALL ENTERPRISE AGREEMENT
COUNTY AND MUNICIPALITY GOVERNMENT
(E214-6)

This Agreement is by and between the organization identified in the Quotation (**"Customer"**) and **Environmental Systems Research Institute, Inc.** (**"Esri"**).

This Agreement sets forth the terms for Customer's use of Products and incorporates by reference (i) the Quotation and (ii) the Master Agreement. Should there be any conflict between the terms and conditions of the documents that comprise this Agreement, the order of precedence for the documents shall be as follows: (i) the Quotation, (ii) this Agreement, and (iii) the Master Agreement. This Agreement shall be governed by and construed in accordance with the laws of the state in which Customer is located without reference to conflict of laws principles, and the United States of America federal law shall govern in matters of intellectual property. The modifications and additional rights granted in this Agreement apply only to the Products listed in Table A.

Table A
List of Products

Uncapped Quantities

Desktop Software and Extensions (Single Use)
ArcGIS Desktop Advanced
ArcGIS Desktop Standard
ArcGIS Desktop Basic
ArcGIS Desktop Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst, ArcGIS Publisher, ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS Workflow Manager, ArcGIS Data Reviewer

Enterprise Software and Extensions
ArcGIS Enterprise and Workgroup (Advanced and Standard)
ArcGIS Monitor
ArcGIS Enterprise Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst, ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS Workflow Manager

Enterprise Additional Capability Servers
ArcGIS Image Server

Developer Tools
ArcGIS Engine
ArcGIS Engine Extensions: ArcGIS 3D Analyst, ArcGIS Spatial Analyst, ArcGIS Engine Geodatabase Update, ArcGIS Network Analyst, ArcGIS Schematics
ArcGIS Runtime (Standard)
ArcGIS Runtime Analysis Extension

Limited Quantities
One (1) Professional subscription to ArcGIS Developer
Two (2) ArcGIS CityEngine Single Use Licenses
1,000 ArcGIS Online Viewers
1,000 ArcGIS Online Creators
110,000 ArcGIS Online Service Credits
1,000 ArcGIS Enterprise Creators
15 ArcGIS Insights in ArcGIS Enterprise
15 ArcGIS Insights in ArcGIS Online
200 ArcGIS Tracker for ArcGIS Enterprise
200 ArcGIS Tracker for ArcGIS Online
7 ArcGIS Parcel Fabric User Type Extensions (Enterprise)
7 ArcGIS Utility Network User Type Extensions (Enterprise)

OTHER BENEFITS

Number of Esri User Conference registrations provided annually	**5**
Number of Tier 1 Help Desk individuals authorized to call Esri	**5**
Maximum number of sets of backup media, if requested*	**2**
Five percent (5%) discount on all individual commercially available instructor-led training classes at Esri facilities purchased outside this Agreement	

*Additional sets of backup media may be purchased for a fee

Customer may accept this Agreement by signing and returning the whole Agreement with (i) the Quotation attached, (ii) a purchase order, or (iii) another document that matches the Quotation and references this Agreement ("**Ordering Document**"). **ADDITIONAL OR CONFLICTING TERMS IN CUSTOMER'S PURCHASE ORDER OR OTHER DOCUMENT WILL NOT APPLY, AND THE TERMS OF THIS AGREEMENT WILL GOVERN.** This Agreement is effective as of the date of Esri's receipt of an Ordering Document, unless otherwise agreed to by the parties ("**Effective Date**").

Term of Agreement: Three (3) years

This Agreement supersedes any previous agreements, proposals, presentations, understandings, and arrangements between the parties relating to the licensing of the Products. Except as provided in Article 4—Product Updates, no modifications can be made to this Agreement.

A.R.S. § 38-511 applies to this agreement.

Accepted and Agreed:

_____
(Customer)

By: _____
Authorized Signature

Printed Name: _____

Title: _____

Date: _____

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk

CUSTOMER CONTACT INFORMATION

Contact: _____

Address: _____

City, State, Postal Code: _____

Country: _____

Quotation Number (if applicable): _____

Telephone: _____

Fax: _____

E-mail: _____

1.0—Additional Definitions

In addition to the definitions provided in the Master Agreement, the following definitions apply to this Agreement:

"Case" means a failure of the Software or Online Services to operate according to the Documentation where such failure substantially impacts operational or functional performance.

"Deploy", "Deployed" and "Deployment" mean to redistribute and install the Products and related Authorization Codes within Customer's organization(s).

"Fee" means the fee set forth in the Quotation.

"Maintenance" means Tier 2 Support, Product updates, and Product patches provided to Customer during the Term of Agreement.

"Master Agreement" means the applicable master agreement for Esri Products incorporated by this reference that is (i) found at https://www.esri.com/en-us/legal/terms/full-master-agreement and available in the installation process requiring acceptance by electronic acknowledgment or (ii) a signed Esri master agreement or license agreement that supersedes such electronically acknowledged master agreement.

"Product(s)" means the products identified in Table A—List of Products and any updates to the list Esri provides in writing.

"Quotation" means the offer letter and quotation provided separately to Customer.

"Technical Support" means the technical assistance for attempting resolution of a reported Case through error correction, patches, hot fixes, workarounds, replacement deliveries, or any other type of Product corrections or modifications.

"Tier 1 Help Desk" means Customer's point of contact(s) to provide all Tier 1 Support within Customer's organization(s).

"Tier 1 Support" means the Technical Support provided by the Tier 1 Help Desk.

"Tier 2 Support" means the Esri Technical Support provided to the Tier 1 Help Desk when a Case cannot be resolved through Tier 1 Support.

2.0—Additional Grant of License

2.1 Grant of License. Subject to the terms and conditions of this Agreement, Esri grants to Customer a personal, nonexclusive, nontransferable license solely to use, copy, and Deploy quantities of the Products listed in Table A—List of Products for the Term of Agreement (i) for the applicable Fee and (ii) in accordance with the Master Agreement.

2.2 Consultant Access. Esri grants Customer the right to permit Customer's consultants or contractors to use the Products exclusively for Customer's benefit. Customer will be solely responsible for compliance by consultants and contractors with this Agreement and will ensure that the consultant or contractor discontinues use of Products upon completion of work for Customer. Access to or use of Products by consultants or contractors not exclusively for Customer's benefit is prohibited. Customer may not permit its consultants or contractors to install Software or Data on consultant, contractor, or third-party computers or remove Software or Data from Customer locations, except for the purpose of hosting the Software or Data on Contractor servers for the benefit of Customer.

3.0—Term, Termination, and Expiration

3.1 Term. This Agreement and all licenses hereunder will commence on the Effective Date and continue for the duration identified in the Term of Agreement, unless this Agreement is terminated earlier as provided herein. Customer is only authorized to use Products during the Term of Agreement. For an Agreement with a limited term, Esri does not grant Customer an indefinite or a perpetual license to Products.

3.2 No Use upon Agreement Expiration or Termination. All Product licenses, all Maintenance, and Esri User Conference registrations terminate upon expiration or termination of this Agreement.

3.3 Termination for a Material Breach. Either party may terminate this Agreement for a material breach by the other party. The breaching party will have thirty (30) days from the date of written notice to cure any material breach.

3.4 Termination for Lack of Funds. For an Agreement with government or government-

owned entities, either party may terminate this Agreement before any subsequent year if Customer is unable to secure funding through the legislative or governing body's approval process.

3.5 **Follow-on Term.** If the parties enter into another agreement substantially similar to this Agreement for an additional term, the effective date of the follow-on agreement will be the day after the expiration date of this Agreement.

4.0—Product Updates

4.1 **Future Updates.** Esri reserves the right to update the list of Products in Table A—List of Products by providing written notice to Customer. Customer may continue to use all Products that have been Deployed, but support and upgrades for deleted items may not be available. As new Products are incorporated into the standard program, they will be offered to Customer via written notice for incorporation into the Products schedule at no additional charge. Customer's use of new or updated Products requires Customer to adhere to applicable additional or revised terms and conditions in the Master Agreement.

4.2 **Product Life Cycle.** During the Term of Agreement, some Products may be retired or may no longer be available to Deploy in the identified quantities. Maintenance will be subject to the individual Product Life Cycle Support Status and Product Life Cycle Support Policy, which can be found at https://support.esri.com/en/other-resources/product-life-cycle. Updates for Products in the mature and retired phases may not be available. Customer may continue to use Products already Deployed, but Customer will not be able to Deploy retired Products.

5.0—Maintenance

The Fee includes standard maintenance benefits during the Term of Agreement as specified in the most current applicable Esri Maintenance and Support Program document (found at https://www.esri.com/en-us/legal/terms/maintenance). At Esri's sole discretion, Esri may make patches, hot fixes, or updates available for download. No Software other than the defined Products will receive Maintenance. Customer may acquire maintenance for other Software outside this Agreement.

a. **Tier 1 Support**

1. Customer will provide Tier 1 Support through the Tier 1 Help Desk to all Customer's authorized users.

2. The Tier 1 Help Desk will be fully trained in the Products.

3. At a minimum, Tier 1 Support will include those activities that assist the user in resolving how-to and operational questions as well as questions on installation and troubleshooting procedures.

4. The Tier 1 Help Desk will be the initial point of contact for all questions and reporting of a Case. The Tier 1 Help Desk will obtain a full description of each reported Case and the system configuration from the user. This may include obtaining any customizations, code samples, or data involved in the Case.

5. If the Tier 1 Help Desk cannot resolve the Case, an authorized Tier 1 Help Desk individual may contact Tier 2 Support. The Tier 1 Help Desk will provide support in such a way as to minimize repeat calls and make solutions to problems available to Customer's organization.

6. Tier 1 Help Desk individuals are the only individuals authorized to contact Tier 2 Support. Customer may change the Tier 1 Help Desk individuals by written notice to Esri.

b. **Tier 2 Support**

1. Tier 2 Support will log the calls received from Tier 1 Help Desk.

2. Tier 2 Support will review all information collected by and received from the Tier 1 Help Desk including preliminary documented troubleshooting provided by the Tier 1 Help Desk when Tier 2 Support is required.

3. Tier 2 Support may request that Tier 1 Help Desk individuals provide verification of information, additional information, or answers to additional questions to

supplement any preliminary information gathering or troubleshooting performed by Tier 1 Help Desk.

4. Tier 2 Support will attempt to resolve the Case submitted by Tier 1 Help Desk.

5. When the Case is resolved, Tier 2 Support will communicate the information to Tier 1 Help Desk, and Tier 1 Help Desk will disseminate the resolution to the user(s).

6.0—Endorsement and Publicity

This Agreement will not be construed or interpreted as an exclusive dealings agreement or Customer's endorsement of Products. Either party may publicize the existence of this Agreement.

7.0—Administrative Requirements

7.1 **OEM Licenses.** Under Esri's OEM or Solution OEM programs, OEM partners are authorized to embed or bundle portions of Esri products and services with their application or service. OEM partners' business model, licensing terms and conditions, and pricing are independent of this Agreement. Customer will not seek any discount from the OEM partner or Esri based on the availability of Products under this Agreement. Customer will not decouple Esri products or services from the OEM partners' application or service.

7.2 **Annual Report of Deployments.** At each anniversary date and ninety (90) calendar days prior to the expiration of this Agreement, Customer will provide Esri with a written report detailing all Deployments. Upon request, Customer will provide records sufficient to verify the accuracy of the annual report.

8.0—Ordering, Administrative Procedures, Delivery, and Deployment

8.1 Orders, Delivery, and Deployment

a. Upon the Effective Date, Esri will invoice Customer and provide Authorization Codes to activate the nondestructive copy protection program that enables Customer to download, operate, or allow access to the Products. If this is a multi-year Agreement, Esri may invoice the Fee up to thirty (30) calendar days before the annual anniversary date for each year.

b. Undisputed invoices will be due and payable within thirty (30) calendar days from the date of invoice. Esri reserves the right to suspend Customer's access to and use of Products if Customer fails to pay any undisputed amount owed on or before its due date. Esri may charge Customer interest at a monthly rate equal to the lesser of one percent (1.0%) per month or the maximum rate permitted by applicable law on any overdue fees plus all expenses of collection for any overdue balance that remains unpaid ten (10) days after Esri has notified Customer of the past-due balance.

c. Esri's federal ID number is 95-2775-732.

d. If requested, Esri will ship backup media to the ship-to address identified on the Ordering Document, FOB Destination, with shipping charges prepaid. Customer acknowledges that should sales or use taxes become due as a result of any shipments of tangible media, Esri has a right to invoice and Customer will pay any such sales or use tax associated with the receipt of tangible media.

8.2 **Order Requirements.** Esri does not require Customer to issue a purchase order. Customer may submit a purchase order in accordance with its own process requirements, provided that if Customer issues a purchase order, Customer will submit its initial purchase order on the Effective Date. If this is a multi-year Agreement, Customer will submit subsequent purchase orders to Esri at least thirty (30) calendar days before the annual anniversary date for each year.

a. All orders pertaining to this Agreement will be processed through Customer's centralized point of contact.

b. The following information will be included in each Ordering Document:

(1) Customer name; Esri customer number, if known; and bill-to and ship-to addresses
(2) Order number
(3) Applicable annual payment due

9.0—Mergers, Acquisitions, or Divestitures

If Customer is a commercial entity, Customer will notify Esri in writing in the event of (i) a consolidation, merger, or reorganization of Customer with or into another corporation or entity; (ii) Customer's acquisition of another entity; or (iii) a transfer or sale of all or part of Customer's organization (subsections i, ii, and iii, collectively referred to as "**Ownership Change**"). There will be no decrease in Fee as a result of any Ownership Change.

9.1 If an Ownership Change increases the cumulative program count beyond the maximum level for this Agreement, Esri reserves the right to increase the Fee or terminate this Agreement and the parties will negotiate a new agreement.

9.2 If an Ownership Change results in transfer or sale of a portion of Customer's organization, that portion of Customer's organization will transfer the Products to Customer or uninstall, remove, and destroy all copies of the Products.

9.3 This Agreement may not be assigned to a successor entity as a result of an Ownership Change unless approved by Esri in writing in advance. If the assignment to the new entity is not approved, Customer will require any successor entity to uninstall, remove, and destroy the Products. This Agreement will terminate upon such Ownership Change.

CHANDLER arizona
Community of Innovation

City Council Memorandum **Information Technology** **Memo No.** UA21-031

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Debra Stapleton, Assistant City Manager
Sandip Dholakia, Chief Information Officer
From: Kerstin Nold, IT Services Manager
Subject: Agreement No. IT9-208-4063, with Accelerated Technology Laboratories, Inc., for a Hosted Laboratory Information Management System

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Proposed Motion:

Move City Council award Agreement No. IT9-208-4063, to Accelerated Technology Laboratories, Inc., for a hosted laboratory information management system, in the amount of $73,799.

Background/Discussion:

The Water Quality Division operates laboratories at three locations. The laboratories perform water quality regulatory compliance testing required by the Environmental Protection Agency (EPA) and Arizona Department of Environmental Quality (ADEQ), and process control testing to support water and wastewater treatment facilities. With over 6,500 samples received annually, each sample is tested for multiple constituents. Every sample also carries with it numerous Quality Assurance/ Quality Control (QA/QC) prerequisite criteria that must be met by the laboratories.

Currently, sample tracking, management of the workflow, QA/QC tasks, testing results, data review, and record-keeping are done manually. Once testing is complete, in-house laboratory results are manually entered into spreadsheets and the water quality database. This manner of managing the laboratory workload is inefficient as well as subject to potential transcription errors, lost information, or inaccuracies that could compromise compliance.

Implementing a Laboratory Information Management System (LIMS) will provide an automated interface with laboratory instruments to streamline entering of test results and QA/QC tracking, as well as a searchable sample management system to efficiently track the status of laboratory samples, testing, reporting, and sample storage. LIMS will also provide operational efficiencies for the Water Quality Division and maintain compliance with State and Federal water and wastewater regulations.

Evaluation:

On April 24, 2019, City staff issued Request for Proposal No. IT9-208-4063 for a hosted laboratory information management system. Notification was sent to all registered vendors. Two proposals were received from the following offerors:

1. Accelerated Technology Laboratories, Inc.

2. Horizon Lab Systems, LLC

The Evaluation Committee evaluated the proposals and recommends award to Accelerated Technology Laboratories, Inc., who submitted the most advantageous offer to the City in accordance with the evaluation criteria.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
601.3820.6718.6WA210	Water Bonds	Water Treatment Plant Improvements	$73,799	Y

Attachments

Agreement

CHANDLER
arizona

City Clerk Document No. _____

City Council Meeting Date: 2/25/21

CITY OF CHANDLER
LABORATORY INFORMATION MANAGEMENT SYSTEM (LIMS)
AGREEMENT NO. IT9-208-4063

THIS AGREEMENT (Agreement) is made and entered into by and between the City of Chandler, an Arizona municipal corporation (City), and Accelerated Technology Laboratories, Inc., a North Carolina corporation, (Contractor), (City and Contractor may individually be referred to as Party and collectively referred to as Parties) and made _____, 20____(Effective Date).

RECITALS

A. City proposes to purchase Sample Master Pro Web, a hosted web-based solution, comprised of implementation services and annual support and maintenance services, as more fully described in Exhibit A, which is attached to and made a part of this Agreement by this reference.

B. Contractor is ready, willing, and able to provide the services described in Exhibit A for the compensation and fees set forth and as described in Exhibit B, which is attached to and made a part of this Agreement by this reference.

C. City desires to contract with the Contractor to provide these services under the terms and conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Agreement, City and Contractor agree as follows:

SECTION I: DEFINITIONS

For purposes of this Agreement, the following definitions apply:
Agreement means the legal agreement executed between the City and the Contractor
City means the City of Chandler, Arizona
Contractor means the individual, partnership, or corporation named in the Agreement
Days means calendar days
May, Should means something that is not mandatory but permissible
Shall, Will, Must means a mandatory requirement

SECTION II: CONTRACTOR'S SERVICES

Contractor must perform the services described in Exhibit A to the City's satisfaction within the terms and conditions of this Agreement and within the care and skill that a person who provides similar services in Chandler, Arizona exercises under similar conditions. All work or services furnished by Contractor under this Agreement must be performed in a skilled and workmanlike manner. Unless authorized by the City in writing, all fixtures, furnishings, and equipment furnished by Contractor as part of the work or services under this Agreement must be new, or the latest model, and of the most suitable grade and quality for the intended purpose of the work or service.

SECTION III: PERIOD OF SERVICE

Contractor must perform the services described in Exhibit A for the term of this Agreement.

Following execution of this Agreement by City, the Contractor will commence work and will complete all implementation services described within six months from the date the Contractor is notified to proceed.

The term of the on-going Support and Maintenance Agreement is one year, and begins on the date of go-live unless sooner terminated in accordance with the provisions of this Agreement. The City and the Contractor may mutually agree to extend the Agreement for up to five additional terms of one year each, or portions thereof. The City reserves the right, at its sole discretion, to extend the Agreement for up to 60 days beyond the expiration of any extension term.

SECTION IV: PAYMENT OF COMPENSATION AND FEES

Unless amended in writing by the Parties, Contractor's compensation and fees as more fully described in Exhibit B for performance of the services approved and accepted by the City under this Agreement must not exceed $73,799. Contractor must submit requests for payment for services approved and accepted during the previous billing period and must include, as applicable, detailed invoices and receipts, a narrative description of the tasks accomplished during the billing period, a list of any deliverables submitted, and any subcontractor's or supplier's actual requests for payment plus similar narrative and listing of their work. Payment for those services negotiated as a lump sum will be made in accordance with the percentage of the work completed during the preceding billing period. Services negotiated as a not-to-exceed fee will be paid in accordance with the work completed on the service during the preceding month. All requests for payment must be submitted to the City for review and approval. The City will make payment for approved and accepted services within 30 days of the City's receipt of the request for payment. Contractor bears all responsibility and liability for any and all tax obligations that result from Contractor's performance under this Agreement.

SECTION V: GENERAL CONDITIONS

5.1 Records/Audit. Records of the Contractor's direct personnel payroll, reimbursable expenses pertaining to this Agreement and records of accounts between the City and Contractor must be kept on the basis of generally accepted accounting principles and must be made available to the City and its auditors for up to three years following the City's final acceptance of the services under this Agreement. The City, its authorized representative, or any federal agency, reserves the right to audit Contractor's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate this Agreement and any amendments. The City reserves the right to decrease the total amount of Agreement price or payments made under this Agreement or request reimbursement from the Contractor following final contract payment on this Agreement if, upon audit of the Contractor's records, the audit discloses the Contractor has provided false, misleading, or inaccurate cost and pricing data. The Contractor will include a similar provision in all of its contracts with subcontractors providing services under the Agreement Documents to ensure that the City, its authorized representative, or the appropriate federal agency, has access to the subcontractors' records to verify the accuracy of all cost and pricing data. The City reserves the right to decrease Contract price or payments made on this Agreement or request reimbursement from the Contractor following final payment on this Agreement if the above provision is not included in subcontractor agreements, and one or more subcontractors refuse to allow the City to audit their records to verify the accuracy and appropriateness of all cost and pricing data. If, following an audit of this Agreement, the audit discloses the Contractor has provided false, misleading, or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Agreement billings, the Contractor will be liable for reimbursement of the reasonable, actual cost of the audit.

5.2 Alteration in Character of Work. Whenever an alteration in the character of work results in a substantial change in this Agreement, thereby materially increasing or decreasing the scope of services, cost of performance, or Project schedule, the work will be performed as directed by the City. However,

before any modified work is started, a written amendment must be approved and executed by the City and the Contractor. Such amendment must not be effective until approved by the City. Additions to, modifications, or deletions from this Agreement as provided herein may be made, and the compensation to be paid to the Contractor may accordingly be adjusted by mutual agreement of the Parties. It is distinctly understood and agreed that no claim for extra work done or materials furnished by the Contractor will be allowed by the City except as provided herein, nor must the Contractor do any work or furnish any materials not covered by this Agreement unless such work is first authorized in writing. Any such work or materials furnished by the Contractor without prior written authorization will be at Contractor's own risk, cost, and expense, and Contractor hereby agrees that without written authorization Contractor will make no claim for compensation for such work or materials furnished.

5.3 Termination for Convenience. The City and the Contractor hereby agree to the full performance of the covenants contained herein, except that the City reserves the right, at its discretion and without cause, to terminate or abandon any service provided for in this Agreement, or abandon any portion of the Project for which services have been performed by the Contractor. In the event the City abandons or suspends the services, or any part of the services as provided in this Agreement, the City will notify the Contractor in writing and immediately after receiving such notice, the Contractor must discontinue advancing the work specified under this Agreement. Upon such termination, abandonment, or suspension, the Contractor must deliver to the City all drawings, plans, specifications, special provisions, estimates and other work entirely or partially completed, together with all unused materials supplied by the City. The Contractor must appraise the work Contractor has completed and submit Contractor's appraisal to the City for evaluation. The City may inspect the Contractor's work to appraise the work completed. The Contractor will receive compensation in full for services performed to the date of such termination. The fee shall be paid in accordance with Section III of this Agreement, and as mutually agreed upon by the Contractor and the City. If there is no mutual agreement on payment, the final determination will be made in accordance with the Disputes provision in this Agreement. However, in no event may the payment exceed the payment set forth in this Agreement nor as amended in accordance with Alteration in Character of Work. The City will make the final payment within 60 days after the Contractor has delivered the last of the partially completed items and the Parties agree on the final payment. If the City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

5.4 Termination for Cause. The City may terminate this Agreement for Cause upon the occurrence of any one or more of the following events: in the event that (a) the Contractor fails to perform pursuant to the terms of this Agreement, (b) the Contractor is adjudged a bankrupt or insolvent, (c) the Contractor makes a general assignment for the benefit of creditors, (d) a trustee or receiver is appointed for Contractor or for any of Contractor's property (e) the Contractor files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws, (f) the Contractor disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction, or (g) the Contractor fails to cure default within the time requested. Where Agreement has been so terminated by City, the termination will not affect any rights of City against Contractor then existing or which may thereafter accrue.

5.5 Indemnification. The Contractor (Indemnitor) must indemnify, defend, save and hold harmless the City and its officers, officials, agents and employees (Indemnitee) from any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees and costs of claim processing, investigation and litigation) (Claims) caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of the Contractor or any of its owners, officers, directors, agents, employees, or subcontractors in connection with this Agreement. This indemnity includes any claim or amount arising out of or recovered under workers' compensation law or on account of the failure of the Contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. The Contractor must indemnify Indemnitee from and against any and all Claims, except those arising solely from Indemnitee's own negligent or willful acts or omissions. The Contractor is responsible for primary loss investigation,

defense and judgment costs where this indemnification applies. In consideration of the award of this Agreement, the Contractor agrees to waive all rights of subrogation against Indemnitee for losses arising from or related to this Agreement. The obligations of the Contractor under this provision survive the termination or expiration of this Agreement.

5.6 Insurance Requirements. Contractor must procure insurance under the terms and conditions and for the amounts of coverage set forth in Exhibit C against claims that may arise from or relate to performance of the work under this Agreement by Contractor and its agents, representatives, employees, and subcontractors. Contractor and any subcontractors must maintain this insurance until all of their obligations have been discharged, including any warranty periods under this Agreement. These insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. The City in no way warrants that the minimum limits stated in Exhibit C are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this Agreement by the Contractor, the Contractor's agents, representatives, employees, or subcontractors. Contractor is free to purchase such additional insurance as may be determined necessary.

5.7 Cooperation and Further Documentation. The Contractor agrees to provide the City such other duly executed documents as may be reasonably requested by the City to implement the intent of this Agreement.

5.8 Notices. Unless otherwise provided, notice under this Agreement must be in writing and will be deemed to have been duly given and received either (a) on the date of service if personally served on the party to whom notice is to be given, or (b) on the date notice is sent if by electronic mail, or (c) on the third day after the date of the postmark of deposit by first class United States mail, registered or certified, postage prepaid and properly addressed as follows:

For the City

Name: Carolee Stees
Title: Procurement Officer
Address: 175 S. Arizona Avenue
Chandler, AZ 85225
Phone: 480-782-2405
Email: carolee.stees@chandleraz.gov

For the Contractor

Name: Rick Danielson
Title: Account Executive
Address: 496 Holly Grove School Road
West End, NC 23736
Phone: 800-565-5467
Email: rdanielson@atlab.com

5.9 Successors and Assigns. City and Contractor each bind itself, its partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Agreement. Neither the City nor the Contractor may assign, sublet, or transfer its interest in this Agreement without the written consent of the other party. In no event may any contractual relation be created between any third party and the City.

5.10 Disputes. In any dispute arising out of an interpretation of this Agreement or the duties required not disposed of by agreement between the Contractor and the City, the final determination at the administrative level will be made by the City Purchasing and Materials Manager.

5.11 Completeness and Accuracy of Contractor's Work. The Contractor must be responsible for the completeness and accuracy of Contractor's services, data, and other work prepared or compiled under Contractor's obligation under this Agreement and must correct, at Contractor's expense, all willful or negligent errors, omissions, or acts that may be discovered. The fact that the City has accepted or approved the Contractor's work will in no way relieve the Contractor of any of Contractor's responsibilities.

5.12 Withholding Payment. The City reserves the right to withhold funds from the Contractor's payments up to the amount equal to the claims the City may have against the Contractor until such time that a settlement on those claims has been reached.

5.13 City's Right of Cancellation. The Parties acknowledge that this Agreement is subject to cancellation by the City under the provisions of Section 38-511, Arizona Revised Statutes (A.R.S.).

5.14 Independent Contractor. For this Agreement the Contractor constitutes an independent contractor. Any provisions in this Agreement that may appear to give the City the right to direct the Contractor as to the details of accomplishing the work or to exercise a measure of control over the work means that the Contractor must follow the wishes of the City as to the results of the work only. These results must comply with all applicable laws and ordinances.

5.15 Project Staffing. Prior to the start of any work under this Agreement, the Contractor must assign to the City the key personnel that will be involved in performing services prescribed in the Agreement. The City may acknowledge its acceptance of such personnel to perform services under this Agreement. At any time hereafter that the Contractor desires to change key personnel while performing under the Agreement, the Contractor must submit the qualifications of the new personnel to the City for prior approval. The Contractor will maintain an adequate and competent staff of qualified persons, as may be determined by the City, throughout the performance of this Agreement to ensure acceptable and timely completion of the Scope of Services. If the City objects, with reasonable cause, to any of the Contractor's staff, the Contractor must take prompt corrective action acceptable to the City and, if required, remove such personnel from the Project and replace with new personnel agreed to by the City.

5.16 Subcontractors. Prior to beginning the work, the Contractor must furnish the City for approval the names of subcontractors to be used under this Agreement. Any subsequent changes are subject to the City's written prior approval.

5.17 Force Majeure. If either party is delayed or prevented from the performance of any act required under this Agreement by reason of acts of God or other cause beyond the control and without fault of the Party (financial inability excepted), performance of that act may be excused, but only for the period of the delay, if the Party provides written notice to the other Party within 10 days of such act. The time for performance of the act may be extended for a period equivalent to the period of delay from the date written notice is received by the other Party.

5.18 Compliance with Federal Laws. Contractor understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989 to it. The Contractor agrees to comply with these laws in performing this Agreement and to permit the City to verify such compliance.

5.19 No Israel Boycott. By entering into this Agreement, Contractor certifies that Contractor is not currently engaged in, and agrees for the duration of the Agreement, not to engage in a boycott of Israel as defined by state statute.

5.20 Legal Worker Requirements. A.R.S. § 41-4401 prohibits the City from awarding a contract to any contractor who fails, or whose subcontractors fail, to comply with A.R.S. § 23-214(A). Therefore, Contractor agrees Contractor and each subcontractor it uses warrants their compliance with all federal immigration laws and regulations that relate to their employees and their compliance with§ 23-214, subsection A. A breach of this warranty will be deemed a material breach of the Agreement and may be subject to penalties up to and including termination of the Agreement. City retains the legal right to inspect the papers of any Contractor's or subcontractor's employee who provides

services under this Agreement to ensure that the Contractor and subcontractors comply with the warranty under this provision.

5.21 Lawful Presence Requirement. A.RS. §§ 1-501 and 1-502 prohibit the City from awarding a contract to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

5.22 Covenant Against Contingent Fees. Contractor warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the Chandler City Council, or any City employee has any interest, financially, or otherwise, in Contractor's firm. For breach or violation of this warrant, the City may annul this Agreement without liability or, at its discretion, to deduct from the Agreement price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

5.23 Non-Waiver Provision. The failure of either Party to enforce any of the provisions of this Agreement or to require performance of the other Party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor must it affect the validity of this Agreement or any part thereof, or the right of either Party to thereafter enforce each and every provision.

5.24 Disclosure of Information Adverse to the City's Interests. To evaluate and avoid potential conflicts of interest, the Contractor must provide written notice to the City, as set forth in this Section, of any work or services performed by the Contractor for third parties that may involve or be associated with any real property or personal property owned or leased by the City. Such notice must be given 7 business days prior to commencement of the services by the Contractor for a third party, or 7 business days prior to an adverse action as defined below. Written notice and disclosure must be sent to the City's Purchasing and Materials Manager. An adverse action under this Agreement includes, but is not limited to: (a) using data as defined in the Agreement acquired in connection with this Agreement to assist a third party in pursuing administrative or judicial action against the City; or (b) testifying or providing evidence on behalf of any person in connection with an administrative or judicial action against the City; or (c) using data to produce income for the Contractor or its employees independently of performing the services under this Agreement, without the prior written consent of the City. Contractor represents that except for those persons, entities, and projects identified to the City, the services performed by the Contractor under this Agreement are not expected to create an interest with any person, entity, or third party project that is or may be adverse to the City's interests. Contractor's failure to provide a written notice and disclosure of the information as set forth in this Section constitute a material breach of this Agreement.

5.25 Data Confidentiality and Data Security. As used in the Agreement, data means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the Contractor or its subcontractors in the performance of this Agreement. The Parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to the Contractor or its subcontractors in connection with the Contractor's or its subcontractor's performance of this Agreement is confidential and proprietary information belonging to the City. Except as specifically provided in this Agreement, Contractor or its subcontractors must not divulge data to any third party without the City's prior written consent. Contractor or its subcontractors must not use the data for any purposes except to perform the services required under this Agreement. These prohibitions do not apply to the following data

provided to the Contractor or its subcontractors have first given the required notice to the City: (a) data which was known to the Contractor or its subcontractors prior to its performance under this Agreement unless such data was acquired in connection with work performed for the City; or (b) data which was acquired by the Contractor or its subcontractors in its performance under this Agreement and which was disclosed to the Contractor or its subcontractors by a third party, who to the best of the Contractor's or its subcontractors knowledge and belief, had the legal right to make such disclosure and the Contractor or its subcontractors are not otherwise required to hold such data in confidence; or (c) data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its subcontractors are subject. In the event the Contractor or its subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its subcontractors became privy as a result of any other contract with the City, the Contractor must first notify the City as set forth in this Section of the request or demand for the data. The Contractor or its subcontractors must give the City sufficient facts so that the City can be given an opportunity to first give its consent or take such action that the City may deem appropriate to protect such data or other information from disclosure. Unless prohibited by law, within ten calendar days after completion of services for a third party on real or personal property owned or leased by the City, the Contractor or its subcontractors must promptly deliver, as set forth in this Section, a copy of all data to the City. All data must continue to be subject to the confidentiality agreements of this Agreement. Contractor or its subcontractors assume all liability to maintain the confidentiality of the data in its possession and agrees to compensate the City if any of the provisions of this Section are violated by the Contractor, its employees, agents or subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. Contractor agrees that the requirements of this Section must be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this Agreement without notice.

5.26 Personal Identifying Information-Data Security. Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times by Contractor and any of its subcontractors. At a minimum, Contractor must encrypt or password-protect electronic files. This includes data saved to laptop computers, computerized devices, or removable storage devices. When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed. In the event that data collected or obtained by Contractor or its subcontractors in connection with this Agreement is believed to have been compromised, Contractor or its subcontractors must immediately notify the City contact. Contractor agrees to reimburse the City for any costs incurred by the City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach. Contractor agrees that the requirements of this Section must be incorporated into all subcontracts entered into by Contractor. It is further agreed that a violation of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Agreement without notice. The obligations of Contractor or its subcontractors under this Section must survive the termination of this Agreement.

5.27 Jurisdiction and Venue. This Agreement is made under, and must be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any action to enforce any provision of this Agreement or to obtain any remedy with respect hereto must be brought in the courts located in Maricopa County, Arizona, and for this purpose, each Party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

5.28 Survival. All warranties, representations, and indemnifications by the Contractor must survive the completion or termination of this Agreement.

5.29 Modification. Except as expressly provided herein to the contrary, no supplement, modification, or amendment of any term of this Agreement will be deemed binding or effective unless in writing and signed by the Parties.

5.30 Severability. If any provision of this Agreement or the application to any person or circumstance may be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application will not be affected and will be enforceable to the fullest extent permitted by law.

5.31 Integration. This Agreement contains the full agreement of the Parties. Any prior or contemporaneous written or oral agreement between the Parties regarding the subject matter is merged and superseded.

5.32 Time is of the Essence. Time of each of the terms, covenants, and conditions of this Agreement is hereby expressly made of the essence.

5.33 Date of Performance. If the date of performance of any obligation or the last day of any time period provided for should fall on a Saturday, Sunday, or holiday for the City, the obligation will be due and owing, and the time period will expire, on the first day after which is not a Saturday, Sunday or legal City holiday. Except as may otherwise be set forth in this Agreement, any performance provided for herein will be timely made if completed no later than 5:00 p.m. (Chandler time) on the day of performance.

5.34 Third Party Beneficiary. Nothing under this Agreement will be construed to give any rights or benefits in the Agreement to anyone other than the City and the Contractor, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and exclusive benefit of City and the Contractor and not for the benefit of any other party.

5.35 Conflict in Language. All work performed must conform to all applicable City of Chandler codes, ordinances, and requirements as outlined in this Agreement. If there is a conflict in interpretation between provisions in this Agreement and those in the Exhibits, the provisions in this Agreement prevail.

5.36 Document/Information Release. Documents and materials released to the Contractor, which are identified by the City as sensitive and confidential, are the City's property. The document/material must be issued by and returned to the City upon completion of the services under this Agreement. Contractor's secondary distribution, disclosure, copying, or duplication in any manner is prohibited without the City's prior written approval. The document/material must be kept secure at all times. This directive applies to all City documents, whether in photographic, printed, or electronic data format.

5.37 Exhibits. The following exhibits are made a part of this Agreement and are incorporated by reference:

Exhibit A - Project Description/Scope of Services
Exhibit B - Compensation and Fees
Exhibit C - Insurance Requirements
Exhibit D - Special Conditions
Exhibit E – Master Software & Services Agreement

5.38 Special Conditions. As part of the services Contractor provides under this Agreement, Contractor agrees to comply with and fully perform the special terms and conditions set forth in Exhibit D, which is attached to and made a part of this Agreement.

5.39 Cooperative Use of Agreement. In addition to the City of Chandler and with approval of the Contractor, this Agreement may be extended for use by other municipalities, school districts and government agencies of the State. Any such usage by other entities must be in accordance with the ordinance, charter and/or procurement rules and regulations of the respective political entity.

If required to provide services on a school district property at least 5 times during a month, the Contractor will submit a full set of fingerprints to the school of each person or employee who may provide such service. The District will conduct a fingerprint check in accordance with A.R.S. 41-1750 and Public Law 92-544 of all Contractors, subcontractors or vendors and their employees for which fingerprints are submitted to the District. Additionally, the Contractor will comply with the governing body fingerprinting policies of each individual school district/public entity. The Contractor, sub-contractors, vendors and their employees will not provide services on school district properties until authorized by the District.

Orders placed by other agencies and payment thereof will be the sole responsibility of that agency. The City will not be responsible for any disputes arising out of transactions made by other agencies who utilize this Agreement.

5.40 Non-Discrimination and Anti-Harassment Laws. Contractor must comply with all applicable City, state, and federal non-discrimination and anti-harassment laws, rules, and regulations.

5.41 Licenses and Permits. Beginning with the Effective Date and for the full term of this Agreement, Contractor must maintain all applicable City, state, and federal licenses and permits required to fully perform Contractor's services under this Agreement.

5.42 Warranties. Contractor must furnish a 1 year warranty on all work and services performed under this Agreement. Contractor must furnish, or cause to be furnished, a 2 year warranty on all fixtures, furnishings, and equipment furnished by Contractor, subcontractors, or suppliers under this Agreement. Any defects in design, workmanship, or materials that do not comply with this Agreement must be corrected by Contractor (including, but not limited to, all parts and labor) at Contractor's sole cost and expense. All written warranties and redlines for as-built conditions must be delivered to the City on or before the City's final acceptance of Contractor's services under this Agreement.

5.43 Emergency Purchases. City reserves the rights to purchase from other sources those items, which are required on an emergency basis and cannot be supplied immediately by the Contractor.

5.44 Non-Exclusive Agreement. This agreement is for the sole convenience of the City of Chandler. The City reserves the right to obtain like goods or services from another source when necessary.

5.45 Budget Approval Into Next Fiscal Year. This Agreement will commence on the Effective Date and continue in full force and effect until it is terminated or expires in accordance with the provisions of this Agreement. The Parties recognize that the continuation of this Agreement after the close of the City's fiscal year, which ends on June 30 of each year, is subject to the City Council's approval of a budget that includes an appropriation for this item as expenditure. The City does not represent that this budget item will be actually adopted. This determination is solely made by the City Council at the time Council adopts the budget.

This Agreement shall be in full force and effect only when it has been approved and executed by the duly authorized City officials.

FOR THE CITY

By: _____

Its: _____
Mayor

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
City Clerk

FOR THE CONTRACTOR

By: _____

Its: Sr. Vice President

EXHIBIT A
SCOPE OF SERVICES

The City of Chandler expects Accelerated Technology Laboratories, Inc. (ATL) to deliver and implement a hosted, web-based laboratory information management system (LIMS), Sample Master Pro, requiring no hardware or software installations, along with on-going annual support.

Project Scope

Sample Master Pro shall increase the productivity of the City's laboratory team by:

- Automating the collection and management of data relating to the processes of testing water in the City of Chandler
- Managing the workflow while tracking the chain of custody of a sample for the entire process from collection to storage to removal
- Scheduling when samples should be tested
- Reducing the number of manual data collection and entry errors
- Providing accurate inventory of chemicals, bottles, preservatives and reagents
- Being accessible to all the chemists at all locations
- Interfacing with large laboratory analytical instruments such as, but not limited to, TOC analyzer, Ion Chromatograph, and ICP-MS, for direct upload of results
- Interfacing with small laboratory analytical instruments such as, but not limited to, analytical balance, pH meter, and spectrometer for direct upload of results
- Performing algorithms for spontaneous calculations
- Performing QA/QC to ensure data integrity and to stay in compliance with state certification requirements.
- Storing and centralizing data and associated information such as QC checks
- Querying data and computing MDL calculations to stay in compliance with Federal regulation
- Providing an audit trail for laboratory compliance with State licensure
- Sorting and organizing data
- Providing easy access and retrieval of data and results for timely reporting
- Interfacing with SAMS Water and Wastewater modules for direct upload of test results

Sample Master Pro must comply with the below specifications as defined:

Responsive Design

Sample Master Pro shall respond to the user's behavior and environment based on screen size, platform, and orientation of devices. It shall consist of a mix of flexible grids and layouts that automatically resizes and restructures the layout to accommodate the screen size. In other words, the responsive design programming shall have the technology to automatically respond to all devices (desktops, tablets, and cellular phones), particularly tablets and iPhones. This shall eliminate the need for a different design and configuration.

ADA Compliance

The website should meet the Federal 508 accessibility guidelines as well as WCAG 2.1-Level AA requirements.
https://www.hhs.gov/web/section-508/index.html
http://www.w3.org/WAI/WCAG21/quickref/

Brand Standards

Any work updated or completed for the City must adhere to the City's Brand Standards, which outline the specific use of the City's identity on all print and digital assets and communication. The City's brand identity includes but is not limited to the City's logo, colors typography, visuals and a lexicon.

- The website must have a default/standard font size of 16 pixels

- Printed documents body text must be Open Sans font size 11 point
- The City's logos and brand standards can be found at:

https://www.chandleraz.gov/government/departments/communications-and-public-affairs/brand-standards

End User Experience

ATL shall facilitate a user-friendly experience for City Staff utilizing the Sample Master Pro system as part of their operational processes to test and report results of water samples. The system must be intuitive and allow users to complete laboratory reporting tasks in less time than the current manual process.

In addition, ATL shall deliver implementation services and project management services that include:

Consulting and Project Management Services

Kick off the Project: The City of Chandler will assemble all key stakeholders and ATL will schedule a conference call. Both ATL and the City of Chandler will introduce team members and their roles in the project. ATL will hold a kick-off meeting to discuss the project, the plan in terms of ATL's processes and procedures along with some of the tools (checklists, templates, forms) that are used and our expectations in working with our partners. ATL will send a copy of the presentation along with meeting notes.

Updated Project Schedule and Dashboard: ATL to schedule a call with the City of Chandler team to review the pre-installation checklist, templates and any changes so that an updated Project Schedule/Project Dashboard can be created.

Requirements Gathering: ATL engineers will meet on-site with the Project Manager and the City of Chandler team to assess the scope of the client's configuration and customization requirements. ATL utilizes our Requirements Gathering process to assess the scope of the client's configuration and customization requirements. This process is designed to mitigate risk, facilitate efficient deployment of the LIMS, evaluate workflows, gather Instrument output files, discuss required reports and ensure long-term success for the implementation. Up to three days have been allocated to this task. Specific dates for on-site consulting service trips will be agreed upon by ATL and the City of Chandler during the project execution and prior to on-site visits.

ATL will Email the On-site Visit Agenda (at least one week in advance of visit): This agenda will define the activities to be completed during the visit, so that the City of Chandler team can plan accordingly. Tasks to be completed during this visit include: continued imported data review, set up and configuration review, calculation configuration and review, teaching the team each task on set up as well as providing end-user training.

A dedicated Project Manager will be assigned by ATL as well as the City of Chandler. Both ATL and the City of Chandler will have adequate project resources (staff, hardware, system accesses, etc.) assigned to the project. ATL typically holds bi-weekly project review meetings that will require the presence of the City of Chandler team members to discuss project updates, any issues, and next steps. The City of Chandler will provide the database/data so that ATL can electronically migrate all of the static table data from the current system into ATL's Sample Master® LIMS.

The City of Chandler will provide ATL with copies of the data that will be integrated with ATL Sample Master® LIMS for off-site development and testing.
The City of Chandler will return all checklists, forms, templates supplied by ATL.

The City of Chandler team will supply instrument output files for any instruments to be interfaced and there will be no changes to the instrument that would alter the output file, after the file is sent to ATL.

The City of Chandler team will supply sample reports to the ATL Project Manager that are required within a reasonable time period so that the ATL team can begin on the report technical requirements documentation.

The City of Chandler team will review all deliverables submitted by ATL within a reasonable time period of submission from ATL to client.

Discovery and Configuration Services

Complete Work on Pre-installation Template: ATL engineers will work with the City of Chandler to help place all of the static table data into the ATL Excel template for import into the LIMS and will ask the City of Chandler team to review for correctness before the static table data (tests, methods, parameters) are imported into Sample Master®. Once the data is imported, a remote training session is scheduled with key City of Chandler team leads to review the import and installation on the production server VM in the cloud. Once completed, on-site training dates are discussed and selected. Reference trainings listed below.

Customization Requirements Documents (RD): ATL will create a detailed requirement document (RD) for each customization that is included in the cost proposal of the project. This includes custom reports and new features or functions. These documents are emailed from ATL to the Client for approval and signature. Once approved they will be placed into the development queue. Once customizations have been developed, they will be implemented for the City of Chandler by ATL.

Off-site Configuration Services: ATL engineers will provide telephone and web-conference delivered guidance and assistance for the configuration of the laboratory's workflow into the LIMS, including:

- Assistance with Static Data Migration: Estimated at 24 Hours

Implementation Services

ATL Cloud Services – LIMS On Demand: ATL and partners maintain servers, apply all updates and service packs, and buy all necessary Windows OS, Microsoft SQL Server, and VMWare licenses. This includes daily backup and holding backups from the last 7 days. ATL will also provide ATL Gold Support – LIMS account manager, Unlimited Technical Support* via a toll-free number, Dial-in Remote Support, Access to Website User Support Area, Software Service Packs,
Product Upgrades, and LIMS Solutions Newsletter. In addition, access to the following modules:
Sample Tracking Module, Data Entry, Sample Scheduling, QA/QC, Electronic Data Transfer,
Chemical Inventory, Resource Management, Customer Relationship Management and LIMS Maintenance Module.
*Support incidents are triaged by Hosting Plan and Severity, with Premium Hosting Support taking priority.

Set up and Configuration of the Remote Servers (VMs): ATL will require four (4) weeks, to configure and test the servers, and review the set up. ATL engineers will also install all the software, Sample Master® LIMS.

Integrations

Enterprise Integration Requirements Documents (RD): ATL engineers will forward completed RD's for review and sign-off before development begins. ATL Engineers will work with the City of Chandler team to integrate the following external databases. Sixty-four (64) hours of time have been estimated for the technical requirements documents and integrations to be completed. If less time is required for any interface, a credit will be issued. If more time is required, the City of Chandler Project Manager will be notified and a Change Order may be required to compensate the Level of Effort required. The following databases will be integrated:

- Interface (EDD/CSV 2 Way) with NJBSoft SAMS (in the Cloud): Estimated at 40 Hours

This interface will allow data to flow from SAMS to LIMS and back.
Instrument Integration Requirements Documents (RD)/Parser Creation: ATL Engineers will deliver RD's for review and approval, prior to work initiation. ATL engineers will require a copy of the instrument output file that clients wish to have imported electronically (this is typically the raw file from the instrument). The instrument output file provided will serve as the test file to QC the software, so it is critical that the output file format does not change after it has been sent to ATL. The requirements for integration will be clearly defined in terms of what data is required to be integrated, how frequently and if uni or bi-directional. The instruments that will be interfaced include the following:

- Ion Chromatograph - Metrohm
- Teledyne Tekmar Fusion TOC Analyzer -
- ICPMS - Perkin Elmer – should be replaced in the near future

ATL's ExcelExpress will support integration for approximately 75 percent of all instruments.
Custom parsers will be created for those instruments requiring a custom interface.

Reporting
Report Development Documents (RD): ATL engineers will provide detailed requirement documents for each report that is to be developed and a unique ID will be assigned to each report. The RDs will be emailed to the City of Chandler Project Manager for review and approval (signoff). Once this is returned to ATL, ATL engineers will create the report. Completed reports will be tested on the test/development server, once they pass testing they will be deployed on the production server. Forty (40) hours of report development will be delivered.

- AZDEQ EDD: Estimated at 40 Hours

OPTIONAL ITEMS:

- RR-7 Results Report with Peer Review & Actual vs Expected: Estimated at 24 Hours
- RR-11 State Drinking Water Report: Estimated at 24 Hours

Documentation
Software Manuals: ATL will provide the City of Chandler with the ATL Sample Master® LIMS User Manual, Sample Master® LIMS Training Manual, and Sample Master® LIMS Administrator Guide in electronic PDF format, and, upon request, in hard copy.

ATL Per-Diem Off-site Testing & Documentation: ATL engineers will perform the following customizations. Seventy-six (76) hours have been allocated to this task.

- Business Requirement SC-1 Schedule Employee Availability/WL-1 Employee Metric
- Queries/Reports: Estimated at 60 Hours
- Single Contract Laboratory Import Template: Estimated at 16 Hours

Training
Completed Training Forms: As ATL is an ISO Certified Company, we complete training forms once training has been delivered, to document the trainer, who was trained, what they were trained on, along with the duration of the training. A copy of this form will be provided to the City of Chandler Project Manager.

Instrument and System Integration Training Records: ATL engineers will come on-site and deliver the instrument parser (which will automatically import data into Sample Master®), a copy of the requirements document along with a completed training record once each user has been trained. ATL has allocated two days of on-site instrument integration and training.

System Administration Training Records: As ATL is an ISO Certified Company, we complete training forms once training has been delivered, to document the trainer, the system administrators which were trained, what they were trained on, along with the duration of the training. A copy of this form will be provided to the City of Chandler Project Manager. We recommend a LIMS administration as well as a back-up LIMS administrator participate in all training sessions. ATL will provide training for a period of two days on-site.

End User Training Records: As ATL is an ISO Certified Company, we complete training forms once training has been delivered, to document the trainer, end-users who were trained, what they were trained on, along with the duration of the training. A copy of this form will be provided to the City of Chandler Project Manager. There will be several sessions of training and a new record will be generated for each session. Training will be provided for a period of four days on-site.

Complete ATL Confirmation of Travel Form: This single page form defines the date of travel and requires signoff so that the date can be locked in and travel arrangements made. A preinstallation conference call is held to address any questions prior to coming on-site for the LIMS Admin and End-user training.

Web Training (Optional Item): Four hours of Web Training for Sample Master® users.

Other Training (Optional Item): One day of supplemental on-site Training for Sample Master® users.

ATL Sample Master® LIMS Boot Camps: ATL offers Sample Master® LIMS Intermediate Boot Camp, a 3-day course that covers all the features and functions of Sample Master®. This was designed to be an intermediate class with a follow-up course on-site training. Four seats included for the 3-day intermediate course. **Special offer: Buy one seat, receive a second seat at No Charge. One seat must be utilized within 36 months of initial PO receipt.*

ATL also offers Sample Master® LIMS Advanced Boot Camp, a 2-day course that covers all the database coding and configuration of Sample Master®. This was designed to be an advanced class after exposure to Sample Master® and SQL Databases.

The City of Chandler will identify a primary and a back-up individual for LIMS administrator training. The City of Chandler team will identify those individuals that will participate in the end-user training so that ATL team can prepare the appropriate number of training manuals. Staff will be given adequate time to be trained as outlined in the contract. Additionally, upper management will support the LIMS effort and ensure that staff have the resource support they need to meet deadlines.

Delivering End-user and LIMS Administrator Training Manuals: ATL engineers upon receiving a final count for individuals who will be trained as LIMS Administrators and end-users will supply the proper number of training manuals and agendas.

The City of Chandler team will provide Internet connectivity to access Sample Master® LIMS and electricity for projectors for training sessions and adequate facilities, and a training room to train LIMS Administrator and End-users.

Project High-level Target Timeline

City of Chandler

ID	Task Name	Duration	Start	Finish	Resource Names
1	**LIMS Preliminary Implementation Project for City of Chandler**	**115.21 days**	**Mon 2/1/21**	**Mon 7/12/21**	
2	**Initial Project Tasks**	**0.63 days**	**Mon 2/1/21**	**Mon 2/1/21**	
3	Confirm Receipt of PO back to Client	2 hrs	Mon 2/1/21	Mon 2/1/21	ATL Account Management
4	Review ATL Proposal Response vs. Client PO requirements	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management
5	Assemble software and manuals, ship and verify receipt	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management
6	Assign ATL Project Team	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management,ATL Project Management
7	**Introductory Activities (Kick-off)**	**16.71 days**	**Mon 2/1/21**	**Wed 2/24/21**	
8	Hold Introductory Call - Project Dashboard, Checklists, Template and Team assignments (ATL + Client Activity)	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management,ATL Project Management,Client Resources
9	**Issue New Client Checklist**	**3.06 days**	**Mon 2/1/21**	**Thu 2/4/21**	
10	New Client Checklist is sent to client.	30 mins	Mon 2/1/21	Mon 2/1/21	ATL Account Management,ATL Project Management
11	Client completes Checklist and returns it to ATL (Client Activity)	2 days	Mon 2/1/21	Wed 2/3/21	Client Resources
12	ATL reviews Checklist, if necessary obtains clarification for incomplete or missing items.	1 day	Wed 2/3/21	Thu 2/4/21	ATL Account Management,ATL Project Management
13	**Issue Static Data Template**	**16.58 days**	**Mon 2/1/21**	**Wed 2/24/21**	
14	Static Data Template sent to client.	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management,ATL Project Management
15	Schedule and Hold review call for in-depth data template instruction(if applicable) (ATL & Client)	1 hr	Mon 2/1/21	Mon 2/1/21	ATL Account Management,ATL Project Management,Client Resources
16	Client completes Static Data Template and returns to ATL (Client Activity)	14 days	Tue 2/2/21	Fri 2/19/21	Client Resources
17	Analyze Checklists response	1 day	Mon 2/22/21	Mon 2/22/21	ATL Project Management
18	Test and prepare Static Data Template for import into LIMS	1.33 days	Tue 2/23/21	Wed 2/24/21	ATL Account Management,ATL Project Management,ATL Software Engineering
19	**Configuration and Customization**	**70.5 days**	**Wed 2/24/21**	**Wed 6/2/21**	
20	**Instrument Integration**	**22.25 days**	**Wed 2/24/21**	**Fri 3/26/21**	
21	Schedule and Hold review call for Instrument Interfacing. (ATL & Client)	1 hr	Wed 2/24/21	Wed 2/24/21	Client Resources
22	Request copies of instrument output files.	1 hr	Wed 2/24/21	Wed 2/24/21	ATL Account Management,ATL Project Management
23	Client submits instrument output files to ATL (Client Activity)	5 days	Wed 2/24/21	Wed 3/3/21	ATL Project Management
24	ATL creates RDs (Requirement Documents) and send to client for review and signature.	7 days	Wed 3/3/21	Fri 3/12/21	ATL Project Management,ATL Account Management
25	Client reviews, approves and signs Instrument RD and sends back to ATL (Client Activity)	2 days	Fri 3/12/21	Tue 3/16/21	Client Resources
26	Parsers are developed based on signed RDs	7 days	Tue 3/16/21	Thu 3/25/21	ATL Account Management,ATL Project Management
27	Test Parsers and deliver with documentation.	1 day	Thu 3/25/21	Fri 3/26/21	ATL Account Management,ATL Project Management,Client Resources
28	**Customizations/System Integrations**	**48.25 days**	**Fri 3/26/21**	**Wed 6/2/21**	
29	Schedule and Hold review call for customization. (ATL & Client)	1 hr	Fri 3/26/21	Fri 3/26/21	Client Resources
30	Request documentation and details of the customization.	1 hr	Fri 3/26/21	Fri 3/26/21	ATL Account Management,ATL Project Management
31	Client submits files to ATL (Client Activity)	10 days	Fri 3/26/21	Fri 4/9/21	ATL Project Management
32	ATL creates RDs (Requirement Documents) and send to client for review and signature.	15 days	Fri 4/9/21	Fri 4/30/21	ATL Account Management,ATL Project Management
33	Client reviews, approves and signs Instrument RD and sends back to ATL (Client Activity)	2 days	Fri 4/30/21	Tue 5/4/21	Client Resources
34	Customizations are developed based on signed RDs	20 days	Tue 5/4/21	Tue 6/1/21	ATL Account Management,ATL Project Management
35	Test customizations and deliver with documentation.	1 day	Tue 6/1/21	Wed 6/2/21	ATL Account Management,ATL Project Management,Client Resources
36	**Electronic Data Deliverables**	**22.13 days**	**Fri 3/26/21**	**Tue 4/27/21**	
37	Request data and/or files needed.	1 hr	Fri 3/26/21	Fri 3/26/21	ATL Account Management,ATL Project Management
38	Requested data and/or files sent to ATL(Client Activity)	2 days	Fri 3/26/21	Tue 3/30/21	Client Resources
39	Develop RD and issue to client	5 days	Tue 3/30/21	Tue 4/6/21	ATL Project Management
40	Client reviews and approves RD and sends back to ATL (Client Activity)	5 days	Tue 4/6/21	Tue 4/13/21	Client Resources
41	Produce, test and package for delivery	10 days	Tue 4/13/21	Tue 4/27/21	ATL Account Management,ATL Software Engineering,ATL Project Management
42	**Pre-Installation Activities**	**7.13 days**	**Wed 3/31/21**	**Fri 4/9/21**	

City of Chandler

ID	Task Name	Duration	Start	Finish	Resource Names
43	Agree on onsite visit date(s) (ATL & Client Activity)	1 day	Wed 3/31/21	Thu 4/1/21	ATL Account Management,ATL Project Management,Client Resources
44	Send Confirmation of Travel document for approval and signature. (ATL)	1 day	Thu 4/1/21	Fri 4/2/21	ATL Account Management
45	Return Confirmation of Travel document with signed approval (Client Activity)	1 day	Fri 4/2/21	Mon 4/5/21	Client Resources
46	Schedule for Pre-Installation Conference Call and Issue invitation (ATL + Client Activity)	2 hrs	Mon 4/5/21	Tue 4/6/21	ATL Account Management,ATL Project Management,Client Resources
47	Hold Pre-Installation Conference Call (ATL + Client Activity)	6 hrs	Tue 4/6/21	Tue 4/6/21	ATL Account Management,ATL Project Management,Client Resources
48	Define schedule for installation and agenda for Kick-Off Meeting and Issue (ATL + Client Activity)	1 day	Tue 4/6/21	Wed 4/7/21	ATL Account Management,ATL Project Management,Client Resources
49	Send onsite agenda to client.	1 hr	Wed 4/7/21	Wed 4/7/21	
50	Perform preliminary LIMS configuration (if applicable)	2 days	Wed 4/7/21	Fri 4/9/21	ATL Project Management,ATL Software Engineering,Client Resources
51	**Preparation for on-site visit**	**0.25 days**	**Fri 4/9/21**	**Mon 4/12/21**	
52	Assemble required manuals, copies of agenda and project dashboard	0.25 days	Fri 4/9/21	Mon 4/12/21	ATL Account Management
53	**Implementation Phase (on-site)**	**51.88 days**	**Wed 4/14/21**	**Fri 6/25/21**	
54	**LIMS Kick Off Meeting (on-site)**	**0.25 days**	**Wed 4/14/21**	**Wed 4/14/21**	
55	Hold Kick-Off Meeting (ATL + Client Activity)	2 hrs	Wed 4/14/21	Wed 4/14/21	ATL Project Management,ATL Software Engineering,Client Resources
56	**Gather Requirements (on-site)**	**0.5 days**	**Wed 4/14/21**	**Wed 4/14/21**	
57	Assess Scope of Configuration and Customization (ATL + Client IT involvement)	4 hrs	Wed 4/14/21	Wed 4/14/21	ATL Project Management,ATL Software Engineering,Client Resources
58	**Train LIMS Administrators (on-site)**	**1 day**	**Wed 4/14/21**	**Thu 4/15/21**	
59	LIMS DBAs and LIMS administrators receive core training (ATL + Client Activity)	1 day	Wed 4/14/21	Thu 4/15/21	ATL Project Management,ATL Software Engineering,Client Resources
60	**Integrate instruments with LIMS (on-site)**	**1 day**	**Thu 5/6/21**	**Fri 5/7/21**	
61	Implement and test instrument data parsers on-site	0.5 days	Thu 5/6/21	Fri 5/7/21	ATL Project Management,ATL Software Engineering
62	Train LIMS Administrators on features and functionality (ATL + Client Activity)	0.5 days	Fri 5/7/21	Fri 5/7/21	ATL Project Management,ATL Software Engineering,Client Resources
63	**Train End-users (on-site)**	**2 days**	**Tue 6/1/21**	**Thu 6/3/21**	
64	LIMS End-users receive core training (ATL + Client Activity)	2 days	Tue 6/1/21	Thu 6/3/21	ATL Training and Validation,Client Resources
65	**Wrap-up meeting (on-site)**	**0.13 days**	**Thu 6/3/21**	**Fri 6/4/21**	
66	Hold Wrap-up meeting (ATL + Client Activity)	1 hr	Thu 6/3/21	Fri 6/4/21	ATL Project Management,ATL Software Engineering,Client Resources
67	Final Cut-over (off-site)	1 day	Thu 6/24/21	Fri 6/25/21	
68	**Supplemental User Training (on-site) - OPTIONAL**	**1 day**	**Fri 7/9/21**	**Mon 7/12/21**	
69	Train End-users (ATL + Client Activity)	1 day	Fri 7/9/21	Mon 7/12/21	ATL Training and Validation,Client Resources
70	**Wrap-up meeting (on-site)**	**0.13 days**	**Mon 7/12/21**	**Mon 7/12/21**	
71	Hold Wrap-up meeting (ATL + Client Activity)	1 hr	Mon 7/12/21	Mon 7/12/21	ATL Account Management,ATL Project Management,ATL Software Engineering,Client Resources

Business Requirements

ATL shall ensure the Sample Master Pro system meets the following business requirements:

Req ID	Category	Requirement Description
AD-1	Administration	Manage user roles/permissions and hierarchy with limited IT involvement - lock down QC limits, holding times, report limit - override ability for management
AD-2	Administration	Track sample types - preservatives and reagents
AV-1	Availability	System must be available 24/7
BN-1	BNR	Manage lab data from sample receipt to testing to reporting to storage including internal and external chain of custody
BN-10	BNR	Provide easy access and retrieval of data and results for timely reporting
BN-11	BNR	Manage workflow and reduce duplicate data entry
BN-12	BNR	Manage employee workload
BN-13	BNR	Comply with SOPs and all State and Federal Regulations
BN-2	BNR	Full read/write access from all locations - from all labs, and remotely in the field when testing, from multiple platforms including mobile devices
BN-3	BNR	Interface with lab instruments to access results, calibration, warranty, support, inventory
BN-4	BNR	Perform algorithms on results spontaneously
BN-5	BNR	Perform QA/QC to ensure data integrity to meet state certification requirements
BN-6	BNR	Query data and compute MDL calculations to meet Federal regulation
BN-7	BNR	Provide an audit trail for laboratory compliance with State
BN-8	BNR	Sort and organize data - for viewing and reporting purposes
BN-9	BNR	Store data and associated information such as QC checks in a centralized location
CA-1	Calibration	Track instrument calibrations and include Method Detection Limits according to 40 CFR, using 13 month sample duration
CA-2	Calibration	Track calibration expiration dates
CA-3	Calibration	Track annual thermometer calibrations
CA-4	Calibration	Track monthly pipette calibrations
CA-5	Calibration	Track calibration of weights
DI-1	Disposal	Track disposal timelines and procedures
DM-1	Document Management	Electronically store safety data sheets
EQ-1	Equipment	Print labels with barcodes for bottles and other equipment
EQ-2	Equipment	Track and time stamp service contract maintenance
EQ-3	Equipment	Print labels for sample ID's, reagents, and standards that are to also be used for inventory and tracking purposes

HS-1	Health and Safety	Track review of health and safety stations including fume hoods
IN-1	Inventory	Track inventory - supplies, preservatives, reagents, equipment, blanks, anything that needs reordering
LG-1	Logging	Log sample collection - location, holding times, source, receiving/delivering, sample type, automated time stamping, preservation
LG-2	Logging	Log chain of custody - subchains, sample points, tests for each, preservative check, automated time and user stamping
LG-3	Logging	Log analysis times, who tested, measurements
LG-4	Logging	Log instrument calibration
LG-5	Logging	Log sample prep time, start of incubation, end of analysis time
LG-6	Logging	Log sample results - pass, pass with exception, reason for exception, fail, reason for fail, rounding rules
LG-7	Logging	Track standards - Log IDs, track to samples, store manufacturer requirements
NO-1	Notification	Notify staff of: preservatives, anything that expires, inventory ordering, QC checks, scheduled tests, warranty checks, equipment calibrations needed, disposal times and guidelines, service contracts
NO-2	Notification	Display tests due - possible dashboard view
NO-3	Notification	Provide notification of upcoming disposal requirements including COD, mercury vials, sample expirations and procedures
NO-4	Notification	Notify staff of: test results, expirations for holding times, reagents, and standards
QA-1	Audit	Track audit trail for all testing, peer reviews, users
QC-1	QA/QC	Track QA/QC results - pass/fail, error check, calculation review, explanation of what happened to sample, reduce and review, signoff
SC-1	Schedule	Maintain calendar of all scheduled testing and employee availability
SP-1	SOPs	Store and update SOPs, including chemical hygiene plan
TR-1	Training	Track new employee training - minimum training for each lab, initial demonstration of capability
TR-2	Training	Track staff proficiency testing samples
TS-1	Testing	Calculate turnaround time based on sample and hold time
TS-2	Testing	Track reagents expiration dates
TS-3	Testing	Calculate turnaround time based on sample and hold time
TS-4	Testing	Schedule testing - daily based on holding times, home testing, city sites, new development, external labs
TS-5	Testing	Scan/read bar codes
WL-1	Workload	Track employee metrics - stats, workload

Reporting Requirements

Req ID	Report Description
RR-1	Report to identify client information, sample information, and testing results only
RR-2	Report to identify client information, sample information, testing results, and a minimum associated QC result
RR-3	Detailed report identifying additional QC information associated with client information, sample information, testing results, and a minimum associated QC result
RR-4	County or State reports on new site - DWAR
RR-5	Reports are to be kept 10 years
RR-6	Reports to be emailed, printed, exported to excel or pdf
RR-7	Test results reports including pass/fail, exceptions, peer review, date/time stamps, test types, expected and actual results
RR-8	Inventory reports to determine when reordering is needed for all equipment
RR-9	Expiration reports should help staff know when samples, standards or reagents are due to expire.
RR-10	Trending reports - multiple reports needed with varying parameters to determine trends in results, workload, inventory, performance overall, for individual labs and individual locations
RR-11	Drinking water reports - State drinking water analysis report forms
RR-12	Near Real Time Reporting
RR-13	Print barcode labels for all equipment
RR-14	Charts and graphs to visualize results and trends

Interface Requirements:

Req ID	Interface Requirements
IR-1	LIMS must interface directly to the current SAMS system to provide test resultsmust export to a spreadsheet if Sams isn't in the cloud yet
IR-2	Interface to Email system, IBM Notes, soon to be Outlook for notifications and reporting
IR-4	Interface to all possible instruments and devices
IR-5	Interface with external labs such as TestAmerica to capture results

Change Order Procedure

Changes to requirements associated to milestones that are not configured or is aligned to another payment milestone requires a Change Order with signature approval from both parties prior to making changes.

Changes to requirements or stated project scope requires adhering to the change order procedures, change request process and completion and approval of the change request form.

The change order procedure will be utilized to manage all material changes to the project and must be approved by both the City and Contractor. The procedure is designed to capture all requests for change including, but not limited to, Specificity Schedules, which are updated monthly on a running two month time period after the Discovery Process, while at the same time ensuring that the decisions are traceable and made at the correct level. Either the City or the Contractor can raise a change request to the Agreement. The Change Request/Order (CR) or will identify the business reasons for the change and define the impacts whether the change is made or not.

Change Order procedure ensures that:

- Project baselines are established for approved changes
- Each CR is identified and managed efficiently
- The Parties' Project Managers are able to accurately communicate the status of each CR to their respective constituents.
- Parties' Project Managers can monitor, approve, defer or withdraw changes proposed to the Agreement, expenditures, and Scope of Work.
- The Parties' Project Managers make decisions which are fully informed as to impact as well as close to the time when the conditions that lead to the proposed change are recent and ascertainable.

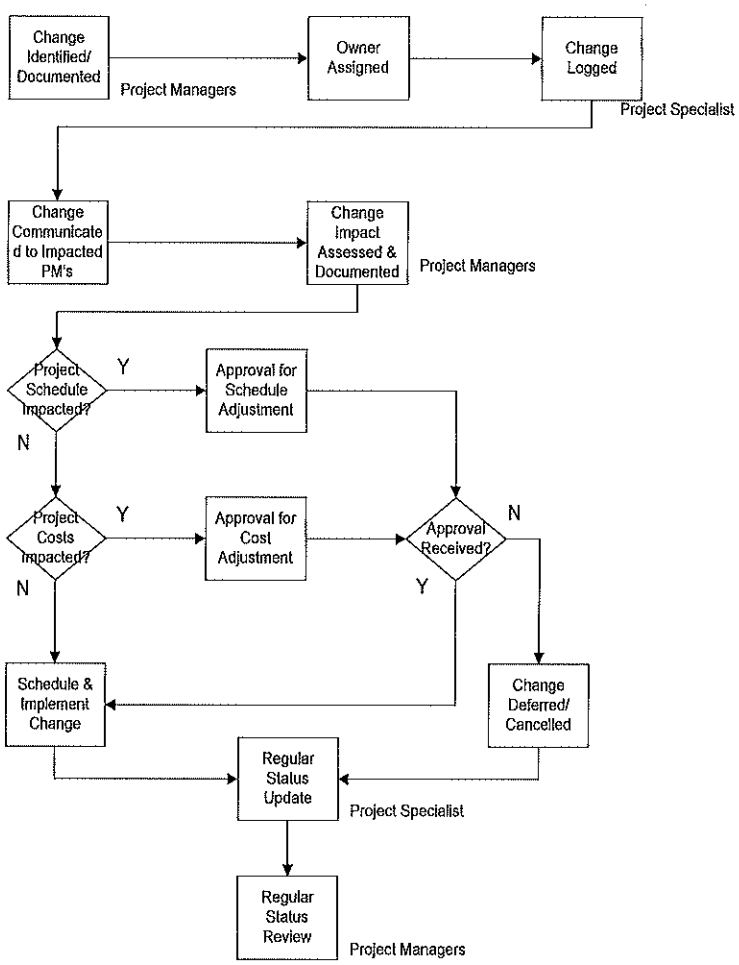
Change Order procedure is specifically designed to eliminate 'scope creep' within the project. As changes are identified and implemented the effects on the business community and other people associated with the new system will need to be assessed and the impact evaluated. This impact will need to be managed though the Change Order procedures and mitigated via relevant communications to, and training of, the affected users and personnel.

Change Order Process

The following change order procedure shall be adopted for all changes to the project. The Project Management Team, consisting of the Organization and the Consultant project managers will have accountability for the Change Order Procedure and the delegated authority for approving changes.

Change Order Process

The following diagram depicts how changes will be managed within this project.



Change Order Procedure and Process Definitions:

Change Identified and Documented: A Change is usually initiated via the Change Order. When a request is deemed to be a change, the Project Manager enters this change process.

Change Owner Assigned: Through project meeting discussions, a single Change Owner is identified (normally a Project Manager). This person speaks to the change, ensures it is analyzed by the appropriate team members and works through any approval processes to determine final disposition.

Change Logged: An Access database will be established to control/log changes. The Project Manager logs a new change into the database where the change is given a control number. Included in this document is a copy of the Change form showing the information collected.

Change Communicated to Impacted Team Members: The Project Manager will ensure that each new Change is communicated (electronically where possible) to all impacted team members. The Change Owner will determine who these people are.

Change Impact Assessed and Documented: Each Project Manager is responsible for analysis of any change that may impact their project deliverables. Impact is documented in the Change database.

Project Schedule Impacted: If the change impacts the Project Schedule, the Change must receive City approval.

Project Costs Impacted: If the Change impacts project costs, the change must receive City approval.

No Cost/Schedule Impact: If the change does not result in any revisions to either costs or schedules, the change must receive City approval.

Schedule and Implement Change: If all necessary approvals are received (or none were required), the change is scheduled and implemented. If the project schedule is impacted, a new revised project schedule is created.

Change Deferred/Cancelled: If the change is not approved, the reasons are to be documented and it will be cancelled or deferred until after the project is completed.

Regular Status Update: Project Managers must be provided with any new information related to Change Status so that the database is kept current and the Change Summary form reflects current information. Project Managers will create a Change Summary report on request only.

Regular Status Review: Review of the ongoing status of changes is a mandatory item on each project management meeting agenda.

Neither Party will charge the other for the consideration of CRs. The completed response will be returned to the Project Management Team. Appropriate approval shall be sought for the change and if necessary the CR may be recommended to the Project Steering Committee for final acceptance.
Each change request will be:

- Approved for inclusion in the project, where the impact on the current phase is outlined and approved as part of the CR
- Approved for inclusion in a future phase, where the impact on the future phase is outlined and approved as part of the CR
- Rejected and Closed

Both Parties shall work in good faith to review and approve or reject any such CRs within a reasonable period of time, typically no more than five Working Days, or as mutually agreed by the parties, from the return of the 'investigated' CR. If accepted, the CR shall be henceforth termed a "Change Order" and the change in work-scope, Statement of Work, fees and payment schedule shall become immediately effective.

Sample Change Request

CR Number		**CR Name**	
Project Name		**Date Submitted**	
Project Manager / Owner		**Resolution Needed By Date**	
Client Name	the Organization	**Requested By**	
Change Request Type	[ ] New Requirement [ ] Requirement Change [ ] Scope / Resource Change [ ] SOW Clarification	**Priority**	[ ] High [ ] Medium [ ] Low
Business Description	**Business Drivers / Change Description:** (Information that needs to be detailed on additional pages should be attached and labeled with CR Number.)		
Change Benefits and Justification			

Initial Disposition			
Disposition	**Reason if not approved**	**Signature**	**Date**
[ ] Accepted & forwarded to Project Manager for review [ ] Future Enhancement [ ] Rejected			

Analysis Information	
Proposed Resolution	**Approach:**
Effort Impact	[ ] Yes [ ] No (Provide explanation)
Schedule Impact	[ ] Yes [ ] No (Provide explanation)
Cost Impact	[ ] Yes [ ] No (Provide explanation)
Resource Impact	[ ] Yes [ ] No (Provide explanation)
Impact if NOT Approved (Schedule, Cost, Quality)	(Provide explanation)

Final Disposition	
Change Control Status	[ ] Approved [ ] Rejected [ ] Future Enhancement
Change Control Reason, if not approved	

Approvals			
Title	**Name**	**Signature**	**Date**
the Organization Project Manager			
the Consultant Project Manager			
the Consultant Vice President			

000		$0.00
Chargeable Hours	**Rate**	**Amount**
000	000	
Non-Chargeable Hours	**Total Hours**	

EXHIBIT B
COMPENSATION AND FEES

Description	Fees
ATL Cloud Services Monthly Subscription Fee ($1,153/month) – 10 named Users for Sample Master access. Subscription includes: 1) Daily backup and holding backups from the last 7 days; 2) Unlimited ATL technical support; 3) Access to Website User Support Area; 4) Software Service Packs; 5) Product Upgrades, and; 6) LIMS Solutions Newsletter.	$13,836.00
Sample Master Enhancement Tools: Sample Tracking, Data Entry, Sample Scheduling, QA/QC, Electronic Data Transfer, Chemical Inventory, Resource Management, Customer Relationship Management and LIMS Maintenance. Includes 2 named user licenses for Test/Dev Environment. Note: Pricing reflects a monthly per-user Customer Spotlight discount*	$712.50
Implementation Services: Requirements Gathering, Configuration Assistance, Report Development, Instrument Interface Parsers (Metrohm Ion Chromatograph, OI Analytical TOC Analyzer and Perkin Elmer ICPMS), System Interfaces (Hach WIMS and NJBSoft SAMS), System Administrator Training, End User Training, Off-site Customizations, Testing and Documentation	$49,755.00
ATL Advantage Plan Project Management	$3,000.00
ATL Cloud Services Account Initiation Fee	$3,500.00
Supplemental Training – Sample Master Boot Camp Intermediate[1]	$2,995.00
Year 1 Project Total	**$73,798.50**

*Participation in ATL's Customer Spotlight Program includes (a) Working with an ATL representative to create a Spotlight article, (b) serving as an ATL reference site for potential customers of ATL's products, (c) working with ATL's technical team to write an article for a peer-reviewed paper on how your laboratory is utilizing Sample Master LIMS.

[1]Note: Includes special discount: First Boot Camp Pass to be used in Year 1, and second Boot Camp Pass provided at no charge when used in 5-year term.

** First payment in the amount of $9,959.00 will include ATL Cloud Services Account Initiation Fee, ATL Advantage Plan and first three months of Hosting Fees. Contractor shall invoice monthly thereafter.

Optional Items:

NPDES DMR Package	$6,999.00
Barcode Starter Package	$2,995.00
Instrument Interface Parser with one-way integration (instrument to LIMS)	$950.00
Instrument Interface Parser with two-way integration (instrument to LIMS and LIMS to instrument)	$1,900.00
Hourly On-site Rate (excluding travel costs)	$309.00
Hourly Off-site Rate (configuration/customization/instrument parsers)	$195.00
Hourly Web Training	$195.00

Support and Maintenance Fees:

Year 2 Monthly Hosting and Support and Maintenance	$13,836.00
Year 3 Monthly Hosting and Support and Maintenance	$13,836.00
Year 4 Monthly Hosting and Support and Maintenance	$13,836.00
Year 5 Monthly Hosting and Support and Maintenance	$13,836.00
Year 6 Monthly Hosting and Support and Maintenance	$13,836.00

EXHIBIT C
INSURANCE

General.

A. At the same time as execution of this Agreement, the Contractor shall furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement shall not be deemed to apply to required Workers' Compensation coverage.

B. The Contractor and any of its subcontractors shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

C. The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

D. The City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Contractor from liabilities that might arise out of the performance of the Agreement services under this Agreement by Contractor, its agents, representatives, employees, subcontractors, and the Contractor is free to purchase any additional insurance as may be determined necessary.

E. Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve the Contractor from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

F. Use of Subcontractors: If any work is subcontracted in any way, the Contractor shall execute a written contract with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of the Contractor in this Agreement. The Contractor is responsible for executing the Agreement with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

Minimum Scope and Limits of Insurance. The Contractor shall provide coverage with limits of liability not less than those stated below.

A. *Commercial General Liability-Occurrence Form.* Contractor must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

B. *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles*
Vehicle Liability: Contractor must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Contractor owned, hired, and non-owned vehicles assigned to or used in the performance of the Contractor's work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of

this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

C. *Workers Compensation and Employers Liability Insurance*: Contractor must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance of work or services under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

D. *Professional Liability.* If the Agreement is the subject of any professional services or work performed by the Contractor, or if the Contractor engages in any professional services or work adjunct or residual to performing the work under this Agreement, the Contractor must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by the Contractor, or anyone employed by the Contractor, or anyone whose acts, mistakes, errors and omissions the Contractor is legally liable, with a liability limit of $1,000,000 each claim and $2,000,000 all claims. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage must extend for 3 years past completion and acceptance of the work or services, and the Contractor, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

E. *Technology Errors and Omissions Liability including Network Security and Privacy Liability*

For Contracts under $500,000

	Minimum Limits:
Per Loss	$ 3,000,000
Aggregate	$ 3,000,000

For Service Contracts over $500,001

	Minimum Limits:
Per Loss	$ 5,000,000
Aggregate	$ 5,000,000

The policy shall cover professional misconduct or lack of ordinary skill for those positions defined in the Scope of Services of this contract.

In the event that the professional liability insurance required by this Contract is written on a claims-made basis, Contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning at the time work under this Contract is completed.
If such insurance is maintained on an occurrence form basis, Contractor shall maintain such insurance for an additional period of 1 year following termination of Contract. If such insurance is maintained on a claims-made basis, Contractor shall maintain such insurance for an additional period of 3 years following termination of the Contract.
If Contractor contends that any of the insurance it maintains pursuant to other sections of this clause satisfies this requirement (or otherwise insures the risks described in this section), then Contractor shall provide proof of same.

The insurance shall provide coverage for the following risks

a. Liability arising from theft, dissemination and / or use of confidential information (a defined term including but not limited to bank account, credit card account, personal information such as name, address, social security numbers, etc. information) stored or transmitted in electronic form
b. Network Security Liability arising from the unauthorized access to, use of or tampering with computer systems including hacker attacks, inability of an authorized third party, to gain access to your services including denial of service, unless caused by a mechanical or electrical failure
c. Liability arising from the introduction of a computer virus into, or otherwise causing damage to, a customer's or third person's computer, computer system, network or similar computer related property and the data, software, and programs thereon.

Additional Requirements:

a. The policy shall provide a waiver of subrogation

Additional Policy Provisions Required.

A. *Self-Insured Retentions or Deductibles.* Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

1. The Contractor's insurance must contain broad form contractual liability coverage.

2. The Contractor's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees shall be in excess of the coverage provided by the Contractor and must not contribute to it.

3. The Contractor's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

4. Coverage provided by the Contractor must not be limited to the liability assumed under the indemnification provisions of this Agreement.

5. The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by the Contractor for the City.

6. The Contractor, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. The Contractor must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

7. If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this

acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

B. *Insurance Cancellation During Term of Contract/Agreement.*

1. If any of the required policies expire during the life of this Contract/Agreement, the Contractor must forward renewal or replacement Certificates to the City within 10 days after the renewal date containing all the required insurance provisions.

2. Each insurance policy required by the insurance provisions of this Contract/Agreement shall provide the required coverage and shall not be suspended, voided or canceled except after 30 days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then 10 days prior notice may be given. Such notice shall be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, the Contractor or its insurance broker shall notify the City of any cancellation, suspension, non-renewal of any insurance within 7 days of receipt of insurers' notification to that effect.

A. *City as Additional Insured.* The policies are to contain, or be endorsed to contain, the following provisions:

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, the Contractor including the City's general supervision of the Contractor; Products and Completed operations of the Contractor; and automobiles owned, leased, hired, or borrowed by the Contractor.

2. The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT D
SPECIAL CONDITIONS

City Ownership of Project Documents. All work products (electronically or manually generated) including, but not limited to: plans, specifications, cost estimates, tracings, studies, design analyses, original drawings, Computer Aided Drafting and Design (CADD) file diskettes which reflect all final drawings, and other related documents which are prepared in the performance of this Agreement (collectively referred to as "Documents") are to be and remain the property of the City and are to be delivered to the City Representative before the final payment is made to the Contractor. In the event these Documents are altered, modified or adapted without the written consent of the Contractor, which consent the Contractor shall not unreasonably withhold, the City agrees to hold the Contractor harmless to the extent permitted by law from the legal liability arising out of the City's alteration, modification or adaptation of the Documents.

Contractor to Retain Copyrights. The copyrights, patents, trade secrets or other intellectual property rights associated with the ideas, concepts, techniques, inventions, processes or works of authorship developed or created by the Contractor, its subcontractors or personnel, during the course of performing this Agreement or arising out of the Project shall belong to the Contractor.

License to City for Reasonable Use. With this Agreement, the Contractor and its subcontractors hereby grant a license to the City, its agents, employees, and representatives for an indefinite period of time to reasonably use, make copies, and distribute as appropriate the Documents, works or deliverables developed or created as a result of the Project and this Agreement. This license also includes the making of derivative works. In the event that the derivative works require the City to alter or modify the Documents, then the provisions of this section apply.

Offshore Performance of Work Prohibited. Due to security and identification protection concerns, direct Services under this Contract must be performed within the borders of the United States. Any Services that are described in the scope of work that directly serve the City and may involve access to secure or sensitive data or personal client data or development or modification of software for the City must be performed within the borders of the United States. Notwithstanding anything to the contrary, and unless stated otherwise in the scope of work, this definition does not apply to indirect or "overhead" services, redundant back-up services, or services that are incidental to the performance of this Contract.

Support Services:

ATL shall provide Support Services pursuant to the Agreement and according to the further terms and conditions set forth below to Client for Software Services listed in a Quote, so long as Client has paid the applicable Software Fee and is not in breach of any provision of the Agreement.

1. **SUPPORT SERVICES**

1.1 Software Support. ATL shall perform the following Software Support Services on a per incident basis:(i) assist Client in diagnosing reported Errors; and (ii) provide technical services to Client to attempt to correct diagnosed Errors. Software Support Services include support of Content. A Support Incident may require multiple interactions and off-line research to resolve it. Please note that a Support Incident involving an ATL Software Service bug will not be applied against Client's contracted support incidents.

1.2 Hardware Support. ATL does not provide support for hardware at Client's site.

1.3 Work Not Covered. The following items are outside the scope of Support Services and are subject to additional charges billable in accordance with ATL's then current time and materials support policy: All time associated with problems or service calls that arise from: (i) Client's negligence; or (ii) alterations made or damage caused by parties other than ATL or its authorized representatives. ATL shall not be responsible for Client's computer network or for any connectivity or other related issues that prevent Client from gaining access to the Software Services.

2. **DUTIES OF CLIENT**

2.1 Administrator. Client shall designate a Software Services administrator. The administrator must have a working knowledge of the administrative module of the Software Services and Client data files and shall generally be responsible for template set-up, template management, and recording and reporting Errors and other problems. The administrator must attend the entire online administrative overview training session.

3. **HOURS OF COVERAGE**

3.1 Principal Period of Support. The principal period of support ("PPS") is an eight (8) hour period beginning at 8:00 a.m. ET and ending at 5:00 p.m. ET (Monday through Friday, excluding holidays) in the contiguous United States.

3.2 After Hours Support. The after-hours support (AHS) is from 5:01pm – 7:59am and covers the "Platform" only.

3.3 Hourly Support Service. Support Services that are performed outside of the PPS, at the request of the Client, or that are outside the scope of, or in addition to, the Support Services detailed herein, shall be deemed hourly service, and Client shall be billed in accordance with ATL's then current time and materials support policy. Upon Client's request, ATL shall provide a written estimate of the cost to perform the work prior to beginning work on any task that is being billed in accordance with ATL's time and materials support policy.

4. **PROCEDURES**

4.1 Help Desk. Requests for Support Services will be directed to ATL customer support by calling the help desk telephone line or by sending an email or submitting a web form request to the help desk, if such Internet contact methods are available. If, during the PPS, ATL customer support personnel are unavailable to answer Client's call or immediately respond to Client's submission of email or web form requests, ATL shall respond to Client within 2 hours of Client contacting the help desk during normal business hours if deemed to be a High Severity incident. ATL will work with the Client to categorize the reported problems by severity and update the customer support problem-reporting database as appropriate. ATL will use commercially reasonable efforts to resolve requests for Support Services reported by Client during the PPS in accordance with the severity matrix below, which severity level shall be finally determined by ATL, in its sole discretion. The resolution times set forth in the chart below are target times only and are not guaranteed. **NOTE:** Support incidents are triaged by SaaS Plan and Severity, with Premier support incidents taking priority.

4.2 Authorized Contacts. Client may designate up to **a maximum of two (2) authorized contacts per Client account.** Additional contact people shall result in an additional charge to the Client. Client shall provide to ATL a list of its authorized contact people by the Effective Date of the Agreement. Client must give ATL prior notice of any proposed changes to the list of authorized contact people. The two (2) initial authorized contact people and any replacement contact people will not be authorized to contact the help desk until they have received the proper training from ATL.

5. **SOFTWARE RELEASES**

Subject to Client's payment of the Software Services Fee and compliance with all terms of the Agreement, ATL will provide Client access to Releases that are issued by ATL during the Term. Releases will be updated in the Software Services hosting environment at ATL's discretion with prior notice to Client. Updates will not take place during business hours, unless required to mitigate a specific issue affecting Client's usage of Software.

6. **CONTENT LIBRARY**

During the Term, provided that Client has paid the Software Services Fee, Client shall have access to ATL's Content library.

7. **THIRD PARTY DATABASES**

During the Term, provided that Client has paid the Software Services Fee, Client may purchase certain third-party databases pursuant to an applicable Quote. Such third-party databases will be periodically updated during the Term provided that Client has paid the Software Services Fee and Fees for such third-party databases.

Support Services Severity Matrix:

Severity	Definition	Target Resolution	Actions
High	Error that renders the Software Services inoperative or causes the Software Services to fail catastrophically.	Within 4 business hours	ATL shall promptly initiate the following procedures upon confirmation of the defect by ATL: (1) assign a senior customer support representative to correct the Error; (2) notify senior ATL management that a high severity defect has been reported and that steps are being taken to correct the defect; (3) provide Client with periodic reports on the status of the resolution; and (4) commence work to provide Client with a workaround or fix.
Medium	Error that materially restricts Clients use of the Software Services.	Within 1 business day	ATL shall assign customer support to correct the Error, provide Client with periodic reports on the status of the resolution, and use commercially reasonable efforts to include the fix for the Error in the next Release.
Low	Error that causes only a minor impact on Client's use of the Software Services and/or an Error for which a workaround is available.	Within 3 business days	ATL shall assign customer support to correct the Error, provide Client with periodic reports on the status of the resolution, and may in its discretion include the fix for the Error in the next Release.

Data Use and Security:

This Data Use and Security Agreement ("Data Agreement") is made and entered into as of the date of the Agreement by and between ATL and Client and is incorporated into the Agreement by this reference and shall be subject to the terms and conditions of the Agreement and its Schedules.

WHEREAS, ATL has a hosted software solution; and

WHEREAS, Client uses certain software services of ATL under the Agreement; and

WHEREAS, Client is committed to compliance with all state and federal statutes and regulations, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (as amended, "HIPAA") and regulations promulgated thereunder.

NOW, THEREFORE, in consideration for the mutual promises set forth herein and other good and valuable consideration, and intending to be legally bound, the parties hereto agree as follows:

1. **DEFINITIONS**

1.1 Aggregated Data shall mean Data from multiple Clients in the ATL LIMS On-Demand Network.

1.2 Authorized Purpose shall mean any use by ATL or an ATL Contractor of Client Data as provided for in this Data Agreement or the Software and Services Subscription Agreement.

1.3 Client Data shall mean information from Client's ATL LIMS System shared with the ATL LIMS On-Demand Network. Client Data does not include the data prohibited by Section 2.2 below.

1.4 ATL Contractor shall mean a third party that will have access to Client Data through the ATL LIMS On-Demand Network and agrees to be bound by a Data Use Agreement which shall include at least the same restrictions, terms, and conditions that apply to the ATL LIMS On-Demand Network under this Data Agreement with respect to Client Data.

2. **OBLIGATIONS OF PARTIES**

2.1 This Data Agreement addresses ATL's access to and use of Client Data.

2.2 Client Data. Client owns all right, title and interest to the client data. By participating in the ATL LIMS On-Demand Network, Client agrees that ATL may, through its VPN network, use Client Data for any Authorized Purpose. **Client agrees that it will under no circumstances store, process, or submit protected health information (as defined under HIPAA) or any other types of regulated data on any ATL hardware or ATL software.** ATL shall not be liable to the extent that the Client breaches this Section 2.2, and in the event that Client breaches this Section 2.2, notwithstanding anything to the contrary in the Software and Services Subscription Agreement, or Section 2.8 below, ATL shall have the right to immediately terminate the Software and Services Subscription Agreement upon notice to Client without any cure period.

2.3 Use of Client Data. ATL agrees to use and disclose Client Data only for an Authorized Purpose Client also agrees that ATL may host in the ATL LIMS On- Demand Network archive copies of Client Data disclosed or transmitted to an ATL Contractor.

2.4 Safeguards against Misuse of Information. ATL will use appropriate physical, technological and administrative safeguards to prevent the use or disclosure of Client Data, other than as permitted under this Data Agreement, and to protect the security, integrity and availability of electronic Client Data to which it has proper access.

2.5 Reporting of Unauthorized Disclosures. ATL shall promptly upon becoming aware of any use or disclosure of Client Data in violation of this Data Agreement by any of its officers, directors, employees, contractors or agents or by a third party to which ATL discloses Client Data, report such disclosure, in writing, to the Client from which the Client Data had been obtained.

2.6 Agreements by Third Parties. Each agent, ATL Contractor, or other person that has or will have access to Client Data through the ATL LIMS On-Demand Network shall agree to be bound by a Data Use Agreement which shall include at least the same restrictions, terms, and conditions that apply to the ATL LIMS On-Demand Network under this Data Agreement with respect to Client Data.

2.7 Notice of Request for Data. ATL agrees to notify Client promptly upon receipt of any request for production or subpoena of Client Data, in connection with any governmental investigation or governmental or civil proceeding.

2.8 Termination upon Breach. This Data Agreement may be terminated by either party upon five (5) days prior written notice to the other party in the event that such other party breaches any provision of this Data Agreement and such breach is not cured within such five (5) day period. Upon termination, Client will no longer allow ATL or an ATL Contractor to access, use or disclose Client Data. Each party shall have the right to fully exercise any remedy existing at law or in equity in the event the other party breaches or violates this Data Agreement.

2.9 Survival of Terms. The terms and provisions of this Data Agreement that protect Client Data shall survive expiration or termination of this Data Agreement and such information shall thereafter only be used or disclosed for the Authorized Purpose.

2.10 Entire Agreement. This Data Agreement supersedes all previous representations, understandings or agreements regarding the Client Data and shall prevail notwithstanding any variance with terms and conditions of any other document submitted by or on behalf of Client or ATL regarding the Client Data; provided, that, to the extent the Client enters into a Study Agreement with ATL or an ATL Contractor outlining the terms of the Client's participation in a specific Study, the terms of such Study Agreement shall govern the use of Client Data for such Study.

Service Levels:

General. This Schedule sets forth the Service Levels. As this is a lower cost hosting option there are concessions that have been made. ATL will use commercially reasonable efforts to make the Software Services available during the service period (8:00-5:00pm ET).

1. Service Level Credits. ATL shall issue credits ("Service Level Credits") to Client for any failure by ATL, as defined in section 5, to meet or exceed a Service Level in accordance with this Schedule D. Service Level Credits will be issued on a monthly basis based upon ATL's performance of the Software Services in the prior month and will be applied against ATL's next monthly invoice for the Software Services.

2. Measurements and Reporting. Commencing on the first Access date, ATL shall provide Client a monthly report in sufficient detail to verify ATL's performance of the Software Services as measured by the Service Levels.

3. Exclusions. ATL shall not be responsible for its failure to meet any Service Levels to the extent its performance of the Software Services is adversely affected by the occurrence of any of the following events:

(i) Client's failure to perform its obligations under the Agreement;

(ii) the wrongful acts or omissions of Client or any of its third-party vendors;

(iii) the failure of any of Client's employees to adequately perform their tasks related to the Software Services;

(iv) unreasonable, untimely, incomplete or inaccurate information from Client;

(v) the failure of a Client's equipment or software in a manner that is not ATL's fault;

(vi) the occurrence of a Force Majeure Event, which shall mean a delay in the performance of ATL's obligations under the Agreement if and to the extent caused, directly or indirectly, by fire, flood, earthquake, elements of nature or acts of God; riots, civil disorders, wars, acts of terrorism, rebellions or revolutions in any country; acts or omissions of third parties; or any other cause beyond the reasonable control of that party;

(vii) Scheduled Downtime (as defined below); and/or

(ix) other reasons outside of ATL's control, including any of the following:

- Failure of any connectivity not provided by or on behalf of ATL, including external connectivity used by tele-workers to the extent such external connectivity is not provided by ATL.
- Failure of electric utility power at the Client's facilities, provided that such failure is not arising from or related to any act or omission of ATL or its agents.
- Domain Name Service (DNS) failure, when such services are not under ATL's control or controlled or provided by an agent of ATL
- Scheduled maintenance or system updates to the Software Services performed by ATL personnel or its representatives.
- An equipment or software failure of any ATL server so long as the failure does not affect the ability for the Client to print from or access the Software Services.
- Any problems accessing any email, web address, or application other than those directly provided by ATL, or controlled or provided by an agent of ATL for the Software Services.
- Any third-party application that is installed or updated by Client and/or a third party that causes the Software Services to lose any degree of functionality. As an example, many third-party programs may rely on function libraries or other components which may be overwritten by Windows OS or Office updates, or another third-party application that causes the Software Services to no longer function. Some websites may not be accessible due to system security settings or version conflicts (JVM, ActiveX, plug-ins, etc.). Some third-party applications may rely on access to external servers or services which are not hosted by ATL (email, interface servers, web portals, etc.).

4. Scheduled Downtime. ATL's standard maintenance window is each Sunday night from 6:00 p.m. ET to 5:00 a.m. ET ("Standard Window") at which time the Software Services may be unavailable for use due to scheduled maintenance. In addition, ATL may perform scheduled maintenance from 1:00 a.m. ET to 5:00 a.m. ET each morning and ATL will notify Client for any maintenance expected to prevent access to the Software Services for more than 15 minutes. The notification shall include the reason and the procedure for implementing the change.

5. Service Levels and Credits. There is a separation in Service Level between the "platform" and the "software". They are described as follows:

Platform: is the systems upon which the software runs. If user is able to connect to the login page the platform is considered available.

Software is the supporting software (Citrix) and the actual LIMS software. If the user is able to login to the system and can see the software icon but not launch the software then software is considered down.

The separation in service level is the result of the customer having a LIMS administrator with the capability to adversely affect the LIMS system potentially causing an outage.

Service Level Credits will be issued per hour of lost use if the platform is off line during a time which specifically affects customer business only.

Up Time Guarantee	
Platform (VMs/Connectivity)	99.9%
LIMS Software	99.0%
SLA Guarantee Remediation	Yes -- hourly
Certification /Level	Tier 3/SSAE16/ISO27001 Certified
Location(s)	Multiple Regional Datacenters
High Availability	Yes (Multiple Data Centers)
Hardware Failover	Guaranteed
Last Mile Network Redundancy	Yes
Last Mile Power Feed Redundancy	Yes
UPS Redundancy	Redundant UPS units
Power Feed Redundancy	Multiple Generators
Physical Security	Multiple layer card access
Surveillance	Video and human 24/7/365
Full Backups	Daily
Retention Time	7 days
Time to Restore	8 hours
Monitoring	24/7/365
Security Monitoring	24/7/365
Infrastructure	Multi-tenant design (with appropriate security)
Virtual Machine Use	Multi-tenant

6. Back Up Scheduling. Commencing on the Go Live date and continuing for the remainder of the term of the Agreement, ATL, or its subcontractors will provide and administer a backup solution for the Client in order to facilitate data recovery by backing up the Client's data (including, but not limited to, an off-line "snap-shot" of the database being used to store Client's data) at the end of each business day. The tape backup optional solution, as defined on quote, will allow for the following with respect to the data for Client:

- Allow data recoverability daily for the prior two weeks backups;
- Allow data recoverability weekly for the previous calendar month; and
- Allow data recoverability monthly for 12 previous months.

MASTER SOFTWARE & SERVICES AGREEMENT

This **MASTER SOFTWARE & SERVICES AGREEMENT** (the "**Agreement**") is effective the _____ day of _____, 20____ ("**Effective Date**") by and between _____ _____, a _____, having a principal place of business at _____ _____ ("**Customer**"), and Accelerated Technology Laboratories, Inc., a North Carolina corporation, having its principal place of business at 496 Holly Grove School Road, West End, NC 27276 ("**ATL**").

In consideration of the obligations, covenants, and agreements set forth below and other valuable consideration the sufficiency of which is hereby acknowledged, the Parties have executed the Agreement effective as of the Effective Date. Any Non-Disclosure Agreement executed by the Parties (the "**NDA**"), Exhibit A (Maintenance & Support Services) attached hereto, each Quote (Software and Services Fees) executed by the Parties and each Statement of Work or SOW executed by the Parties are incorporated into the Agreement by reference and together herewith constitute the entire understanding of the Parties with respect to the subject matter hereof.

1. DEFINITIONS

1.1. "**Customer Content**" shall mean the data, internal process designs and workflows, content, materials, formats, logos, materials, trademarks, and service marks (in any form, method or manner of expression or communication now known or hereinafter becomes known; whether or not tangible or intangible, or able to be protected by trade secret, patent, copyright, or trademark) provided by Customer to ATL for incorporation into the Technology or for use in connection with the Agreement, and all associated Intellectual Property Rights.

1.2. "**Deliverable(s)**" shall mean any and all software and computer programs (both executable code and Source Code versions), configurations, documentation, graphics, improvements, interfaces, inventions, materials, modifications, sounds, techniques, Third Party Software, tools, and other technology or works of authorship (in any form, method or manner of expression or communication now known or that hereinafter becomes known; whether or not tangible or intangible, or able to be protected by trade secret, patent, copyright, or trademark), and any work product comprising the same, conceived, created, delivered, developed, or reduced to practice in connection with the Services, and all associated Intellectual Property Rights.

1.3. "**Include**" and variations thereof shall mean "include without limitation" and "including without limitation."

1.4. "**Intellectual Property Rights**" shall mean any and all right, title, and interest, including patent applications, patents, (including reissues, continuations, divisions, continuations-in-part and extensions), trade secrets, copyrights, (including renewals, revivals, or extensions thereof, and any moral rights resulting there from), database rights, trademarks, service marks, or trade names, and any and all other intellectual property or proprietary rights recognized or enforceable under any United States federal or state law, rule or regulation, non-United States law, rule or regulation or international treaty.

1.5. "**Internal Business Purpose**" shall mean for the benefit of Customer as part of its internal processes or as part of the services it provides to its customers in the ordinary course of business, and not for resale or sublicense to third parties.

1.6. "**Losses**" shall mean any and all losses, liabilities, damages and claims, and all related costs and expenses (including reasonable legal fees and disbursements and costs of investigation, litigation, settlement, judgment, interest and penalties).

1.7. "**Maintenance & Support Services**" shall mean the maintenance and support of the Technology conducted by ATL, its agents or

contractors, for Customer as further described on Exhibit A (Maintenance & Support Services), if applicable.

1.8. "**Maintenance Term**" shall mean, unless earlier terminated in accordance with the Agreement, the period set forth on each Quote with respect to the Maintenance & Support Services for particular Software, plus any renewals thereof.

1.9. "**Party**" or "**Parties**" shall mean, individually, Customer or ATL as the context requires and, collectively, both Customer and ATL.

1.10. "**Professional Services**" shall mean the consulting, configuration and other technical services conducted by ATL for Customer as described in a Statement of Work, if applicable.

1.11. "**Project**" shall mean the project mutually agreed to by the Parties in which Professional Services are conducted.

1.12. "**Project Term**" shall mean, unless earlier terminated in accordance with the Agreement, the period, as may be set forth in an SOW, in which Professional Services are being performed under the Agreement

1.13. "**Quote**" shall mean the agreement between ATL (or its authorized reseller) and Customer regarding the specific Software and/or Services (and applicable fees) to be provided to Customer subject to this Agreement (where applicable).

1.14. "**Services**" shall mean Professional Services and Maintenance & Support Services.

1.15. "**Software**" shall mean, if applicable, the object code version of the software and computer programs set forth on each Quote, the object code version of Third Party Software incorporated therein or provided there-with, and related documentation.

1.16. "**Source Code**" shall mean a computer program or software, as the case may be, (i) in human-readable, high-level language form which, when compiled or assembled, becomes the executable object code of such software program, (ii) related scripts, HTML, dynamic HTML, XML, and other interpreted language modules which encode processes, schemas, or formats, and (iii) programmer annotations, commentaries, and version control mechanisms relating to the foregoing.

1.17. "**Statement of Work**" or "**SOW**" shall mean, if applicable, a document (including email) in which the representatives of each Party mutually agree in writing to the specific professional services to be performed for the Project.

1.18. "**Technology**" shall mean the Software, Deliverables, and Updates, and derivative works thereof, along with associated Intellectual Property Rights, but excluding any Customer Content incorporated therein.

1.19. "**Third Party Software**" shall mean third party software provided to Customer with or incorporated in the Technology by ATL, its agents or contractors.

1.20. "**Updates**" shall mean maintenance releases, updates, enhancements, patches, bug fixes, and corrections of the Software periodically made available to ATL's customers purchasing Maintenance & Support Services, but does not include additional modules sold to ATL's customers at an additional cost and not licensed in a Quote.

2. SOFTWARE

2.1. **Delivery.** Promptly after acceptance of each Quote, whether by Customer's execution of the Quote or evidenced by Customer's submission to ATL of a purchase order referencing the Quote, ATL shall provide the applicable Software, related documentation, and enumerated license keys to Customer as set forth on such Quote. Upon such shipment of the Software, ATL (or its authorized reseller) shall invoice Customer the Software fees set forth on the respective Quote.

2.2. **Equipment.** ATL shall not be responsible for any computer equipment and operating software required to use the Software, or for such equipment and operating software conforming to the minimum configuration requirements specified in the documentation provided to Customer by ATL.

2.3. **Escrow.** ATL has deposited at InnovaSafe, Inc. a copy of the Source Code form of the Software,

including related documentation (but excluding Third Party Software), pursuant to its InnovaSafe Escrow Agreement. Upon written request from Customer, ATL will provide Customer with a copy of such agreement. During the Maintenance Term, Customer may be, at its option and expense, a beneficiary under such agreement, provided that in the event Customer fails to purchase or renew the annual Maintenance & Support Services, ATL may, in its sole discretion, remove Customer as a beneficiary.

3. **SERVICES**

3.1. **Maintenance & Support Services.** In consideration of the Maintenance & Support Services fees and Customer's use of the Software in accordance with the Agreement, ATL shall perform the Maintenance & Support Services for Customer. ATL (or its authorized reseller) shall invoice Customer the Maintenance & Support Services fees set forth on each Quote upon shipment of the Software and ninety (90) days prior to any renewal thereof. The Maintenance Term shall automatically renew for successive one (1) year periods, unless either Party provides to the other Party written notice of its intention to terminate at least sixty (60) days prior to the expiration. Failure by Customer to make payment of ATL's renewal invoice in such time-period shall be deemed intention to terminate. If Customer terminates Maintenance & Support Services, Customer may reinstate such Services on a limited basis at a later date upon payment of the amount that the Customer would have paid had there been no lapse in such Services plus a 10% reinstatement fee. Customer may only purchase or terminate Maintenance & Support Services for the aggregate number of concurrent or specified named users as set forth on all Quotes, if applicable. Each Party acknowledges that Maintenance & Support Services shall at least cover each version of the Software for a period of two (2) years following its official ATL quality release, but may not cover previous versions.

3.2. **Professional Services.** In consideration of the Professional Services fees, ATL shall perform the Professional Services for Customer as described in each SOW. Customer acknowledges that any milestone dates established in the SOW are good faith estimates only and that accomplishment of any milestone dates is dependent on Customer's timely performance of its obligations under an applicable SOW as well as factors outside the control of either Party. Unless otherwise set forth in an SOW or Quote, ATL (or its authorized reseller) shall invoice Customer on a semi-monthly basis for the Professional Services fees set forth on each Quote and other expenses incurred in the performance of Professional Services. Customer may terminate Professional Services upon thirty (30) days prior written notice to ATL. In such event, Customer shall pay ATL, in accordance with the terms and conditions hereunder, for all Professional Services completed on a time and materials basis up to the effective date of termination, including for all contractual commitments and resource allocations made by ATL prior to the notice of termination.

3.3. **Fees/Rates.** Services fees or rates shall be as set forth on each Quote for the duration of the Professional Services set forth in an applicable SOW and of the annual period of Maintenance & Support Services set forth on such Quote. Thereafter, such fees or rates may be prospectively adjusted by ATL, but shall in no event exceed ATL's prevailing, published list fees, rates, or adjustments for such Services.

3.4. **Insurance.** ATL agrees to maintain worker's compensation coverage, as applicable, combined single limit automobile liability coverage of one million U.S. dollars ($1,000,000), commercial general liability coverage of one million U.S. dollars ($1,000,000) each occurrence and two million U.S. dollars ($2,000,000) in the aggregate, and umbrella liability coverage of two million U.S. dollars ($2,000,000) for the duration of the Professional Services delivered under an applicable SOW.

3.5. **Change Control & Acceptance.** The Parties shall follow ATL's change control and acceptance procedures as may be further detailed in an SOW. If no such procedures are detailed in the SOW, then the following procedure shall apply: Any change to scope of the Professional Services, the required Deliverables, or any other aspect of the Project shall be timely requested, in writing, by Customer. ATL

shall respond, in writing, with (i) requests for more information, (ii) a proposal describing the fee and schedule impact of implementing the requested change or any portion thereof, including a supplemental Quote, and/or (iii) a rejection of the change request. Unless specified otherwise on its face, any proposal pursuant to subsection (ii) above shall be good for ten (10) business days, during which time Customer may indicate its acceptance of such proposal by executing it or by submitting a purchase order referencing such proposal and/or Quote. ATL is under no obligation to proceed with making the change until the Parties have agreed on the cost and schedule impact, as well as the specifications for the revised Software or other Deliverables. Customer is aware that certain changes in the scope of Professional Services or any changes to an accepted Deliverable may result in additional Professional Services fees.

3.6. **Project Leader.** Customer will designate a sufficiently senior, skilled, and authorized Project leader within its internal Project team to be responsible for facilitating communication, resolving issues, and arranging for ATL access to Customer Content, personnel, equipment, offices, and other Customer resources necessary for ATL's performance of the Agreement. Customer acknowledges and agrees that ATL's performance under the Agreement is dependent on such access. Customer may at any time designate a replacement or successor Project leader by providing timely written notice to ATL.

3.7. **Non-Exclusive.** Customer acknowledges that ATL's personnel performing the Services may be employees or subcontractors of ATL or its affiliates. Subject to any applicable confidentiality obligations, such personnel may provide similar services or deliverables from time to time to other customers of ATL using their skill, knowledge, experience, and know-how, including those gained in the course of performing the Services.

4. INTELLECTUAL PROPERTY

4.1. **Confidential Information.** Each Party acknowledges that during the performance of the Agreement it will have access to certain non-public information of the disclosing Party that is designated as confidential or proprietary and that derives independent value from not being generally known to the public, or of third parties that the disclosing Party is required to maintain as confidential (collectively "Confidential Information"). Such information shall be treated as Confidential Information under this Agreement, and, as applicable, under the NDA, whichever as applied to such information offers greater protection. The recipient of Confidential Information shall not disclose such information outside of recipient, except as permitted herein in the performance of Services, and shall keep such information confidential using the same degree of care, but never less than a reasonable degree of care, as the recipient uses to protect its own Confidential Information of a like nature. Customer's Confidential Information shall include the Customer Content. ATL's Confidential Information shall include the terms and conditions of the Agreement and the Technology (in any form or media, including Source Code).

4.2. **Ownership.** As between ATL and Customer, Customer owns all right, title, and interest to the Customer Content, and ATL or its licensors own all right, title, and interest to the Technology. Accordingly, Customer assigns and transfers to ATL all ownership and Intellectual Property Rights in the Technology. Customer agrees to execute any instruments and to do all things reasonably requested by ATL to vest ATL with all ownership and Intellectual Property Rights in the Technology.

4.3. **License.** Subject to the terms and conditions contained in the Agreement, and further subject to any license agreements to Third Party Software (as may appear on the Software media or the install of the Software), ATL hereby grants to Customer, and Customer hereby accepts, a personal, nonexclusive, non-transferable, non-sublicensable right and license for Customer's internal Business Purposes only (i) to install the Technology on that number of servers at the installation address(es) as set forth on the applicable Quote, and (ii) for each concurrent or specified named user as set forth on the applicable Quote (or, if a site license, for all uses at the specified site) to use the Technology in accordance with its documentation. ATL agrees that the license grant shall entitle Customer to allow third party

consultants, auditors and service providers to access and use the Technology for the sole purpose of providing services to Customer, subject to the confidentiality provisions, license restrictions and user limitations. The Customer acknowledges that the use of an intermediate user interface, portal, or page to aggregate data, information, or actions from multiple individuals or users into the Technology shall not be treated as a single named or concurrent user under the Agreement, but the number of individuals or concurrent users accessing such interface or providing such data or information shall each be deemed a separate named or concurrent user under this Agreement, as the case may be. Customer grants to ATL and its agents during the term of any applicable Services, the non-exclusive right and license to use, reproduce, modify, and create derivative works of the Customer Content solely in connection with the Agreement.

4.4. **Back-Up Copy.** Customer may create one (1) copy of the Technology for back-up and archival purposes only, and for no other purpose whatsoever, provided Customer affix notice of ATL's or its licensors' applicable copyright in such copy.

4.5. **Restrictions.** Any rights not expressly granted by a Party are reserved by such Party, and all other implied licenses are disclaimed. Each Party shall not exceed the scope of the licenses granted. Except as otherwise expressly provided, Customer shall not modify, create derivative works of, sublicense, market, copy, co-brand, private label, publish, publicly display, grant third parties the right to use, frame or link to any Technology. Except for its Internal Business Purpose, Customer shall not use any Technology in any manner to provide service bureau or time-sharing services to third parties or for the benefit of third parties. Customer shall not reverse engineer, decompile, translate, adapt or disassemble, or in any way attempt to reconstruct or discover any Source Code of any Technology by any means whatsoever. Customer may not use any Third Party Software except as part of the Software. Customer shall not bypass or disable any protections put in place by ATL or its licensors against unlicensed use of the Technology. Customer shall not remove any proprietary trademark or copyright notice incorporated in, marked on or affixed to any Technology by ATL or its licensors. Customer shall not cause or permit any third party to do any of the foregoing. Customer agrees to notify ATL immediately of any unauthorized use of any Technology.

4.6. **Restricted Rights.** If Customer is directly or indirectly acquiring the Technology on behalf of the U.S. Government, the Technology is classified as "Commercial Computer Product" and "Commercial Computer Documentation" developed at private expense, contains confidential information and trade secrets of ATL and its licensors, and is subject to "Restricted Rights" as that term is defined in the U.S. Federal Acquisition Regulations. Manufacturer is: Accelerated Technology Laboratories, Inc., 496 Holly Grove School Road, West End, NC 27276, USA.

4.7. **Export Controls.** Customer agrees to adhere to all applicable laws, regulations and rules relating to the export of technical data and shall not export or reexport the Technology to any proscribed country (or national or resident of such country) listed in such applicable laws, regulations and rules unless properly authorized. Customer shall cooperate with ATL consistent with such laws, rules, and regulations.

4.8. **Inspection/Audit.** Upon reasonable prior notice from ATL, Customer shall provide to ATL and its reasonably designated representatives access to (i) any facility or part of a facility in which the Technology is being used, (ii) any personnel using the Technology, and/or (iii) any data or records relating to the Technology or the Agreement for the purpose of verifying compliance with the Agreement

5. PAYMENT

5.1. **Payment Terms; Taxes.** ATL shall provide invoices to Customer via email and/or mail. Customer shall pay all invoiced amounts to ATL within thirty (30) days from the date of invoice. All fees set forth on each Quote exclude all sales, use, value added, or similar federal, state, local or foreign tax, related to the Agreement. Customer shall be responsible for, and agrees to pay, for all such taxes, other than taxes based on ATL's net income, whether set forth on an invoice or otherwise. Customer

hereby acknowl-edges that no purchase order is required for timely payment of its obligations hereunder. Upon request by ATL, Customer shall issue ATL a purchase order for the Software and/or Services within ten (10) business days.

5.2. **Late Payments.** In addition to any other rights of ATL hereunder, ATL may charge Customer interest on the outstanding balance of any overdue fees, charges or expenses at a rate equal to one and one-half percent (1.5%) per month or the highest rate permitted by applicable law, whichever is lower. Customer shall reimburse ATL for all reasonable costs and expenses incurred (including reasonable attorneys' fees) in collecting any overdue amounts. In addition to ATL's rights under Section 8.3 hereof, ATL's obligations, and Customer's rights and licenses are subject to the Customer's timely payment of all fees hereunder.

6. WARRANTIES & COVENANTS

6.1. **Compliance With Laws.** Each Party warrants to the other Party that its performance under the Agreement will not be in violation of any applicable law, rule, or regulation in any material respect, and that it has all rights necessary to grant the other Party the rights set forth in the Agreement.

6.2. **Software.** For the longer of ninety (90) days following the Effective Date, or sixty (60) days following such Software being delivered, installed or otherwise made available to Customer, ATL warrants that the shipped version of the Software shall substantially comply with the specifications in its documentation under normal use on the minimum configuration, provided that there are no modifications or other changes to the Software not made or authorized in writing by ATL. Upon receipt of notice of a defect during such period, ATL shall, at ATL's expense and as Customer's sole remedy, use commercially reasonable efforts to correct or replace the defective Software.

6.3. **Services.** ATL warrants that the Services will be provided through the use of reasonable care and in a professional and workmanlike manner.

6.4. **Non-Solicitation.** Each Party agrees that it will not solicit the employment or consultancy of, offer employment or consultancy to, or otherwise hire or contract any employee of the other Party it is introduced to or becomes aware of in connection with the Professional Services during the Project Term and for two (2) years thereafter.

6.5. **Disclaimer.** EXCEPT AS EXPRESSLY SET FORTH IN THIS ARTICLE 6, THE TECHNOLOGY AND SERVICES ARE PROVIDED ON AN "AS IS" AND "AS AVAILABLE" BASIS, AND EACH PARTY DISCLAIMS ALL WARRANTIES AND CONDITIONS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF ACCURACY, FITNESS FOR A PARTICULAR PURPOSE, INTERFERENCE, MERCHANTABILITY, NON-INFRINGEMENT AND SYSTEM INTEGRATION.

6.5.1. ANY USE OF THE TECHNOLOGY OR CUSTOMER CONTENT BY CUSTOMER IS AT SUCH CUSTOMER'S OWN RISK. ATL DOES NOT WARRANT THAT THE OPERATION OF THE TECHNOLOGY OR CUSTOMER CON-TENT SHALL BE UNINTERRUPTED OR ERROR-FREE OR THAT ALL ERRORS SHALL OR CAN BE CORRECTED.

6.5.2. IF THE EXCLUSIONS SET FORTH IN THIS SECTION 6.5 ARE DETERMINED BY A COURT OF COMPETENT JURISDICTION TO BE UNEN-FORCEABLE, THEN ALL EXPRESS AND IM-PLIED WARRANTIES AND CONDITIONS SHALL BE LIMITED IN DURATION FOR A PERIOD OF THIRTY (30) DAYS AFTER THE EFFECTIVE DATE, AND NO WARRANTIES OR CONDITIONS SHALL APPLY AFTER THAT PERIOD.

7. INDEMNIFICATION & LIMITS OF LIABILITY

7.1. **Customer Indemnification.** Customer agrees to defend, indemnify and hold harmless ATL, its affiliates, and their respective licensors, directors, officers, employees, agents, successors, and assignees from and against any and all Losses incurred or asserted by any third party arising out of (i) the gross negligence or intentional misconduct of Customer, or its employees and agents; (ii) use of the Technology by Customer, or its employees and agents, not in accordance with this Agreement; and/or (iii) assertions that the Customer Content infringes such third party's U.S. Intellectual Property Rights.

7.2. **ATL Indemnification.** ATL agrees to defend, indemnify and hold harmless Customer, its affiliates, and their respective directors, officers, employees, agents, successors, and assignees from and against any and all Losses incurred or asserted by any third party arising out of (i) the gross negligence or intentional misconduct of ATL, or its affiliates, employees and agents; (ii) use of the Customer Content by ATL, or its employees and agents, not in accordance with this Agreement; and/or (iii) assertions that the Technology infringes such third party's U.S. Intellectual Property Rights.

7.3. **Exceptions.** ATL's indemnity obligation shall not extend to any claims (i) if the Technology is modified by any party other than ATL, (ii) arising out of or related to a combination of the Technology with hardware or software not provided by ATL, (iii) if Customer refuses, after express notice from ATL, to use the most-current version of the Technology in place of the earlier version, (iv) if Customer fails to promptly notify ATL of the claim, (v) if Customer fails to promptly give ATL sole control over the defense and settlement of the claim, and/or (vi) if Customer fails to promptly provide ATL reasonable cooperation (including furnishing all related evidence) in such defense or settlement.

7.4. **Injunction.** In the event of actual or alleged infringement or injunction, ATL shall have the right at its expense and option, and as Customer's sole and exclusive remedy, to: (i) procure for Customer the right to continue using the Technology; (ii) modify or replace the Technology with compatible, functionally equivalent, non-infringing component(s); or (iii) terminate the Agreement without any liability, remove the Technology from Customer, and refund to Customer a pro-rata portion of the Software fees paid by Customer based on a straight-line depreciation over three (3) years from the effected Software was first delivered, installed or otherwise made available to Customer, whichever is longer. This subsection shall be Customer's sole and exclusive remedy for Intellectual Property Rights Infringement.

7.5. **Limitation of Liability.** NEITHER PARTY, THEIR AFFILIATES, NOR LICENSORS SHALL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES (INCLUDING LOST PROFITS OR LOST DATA) OR FOR ANY LOSSES (EVEN IF ADVISED OF THE POSSIBILITY THEREOF) OTHER THAN DIRECT DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE AGREEMENT OR THE SUBJECT MATTER HEREOF. ATLS', ITS AFFILIATES', AND ITS LICENSORS' TOTAL CUMULATIVE LIABILITY FOR ANY AND ALL CLAIMS UNDER ANY THEORY OF LAW ARISING OUT OF OR IN CONNECTION WITH THE AGREEMENT SHALL NOT EXCEED:

(i) IF THE PRIMARY CAUSE OF ACTION RELATES TO THE SOFTWARE, THEN, TOGETHER WITH ALL OTHER CAUSES OF ACTION, THE SOFTWARE FEES PAID TO ATL UNDER THE APPLICABLE QUOTE FOR THE RESPECTIVE SOFTWARE;

(ii) IF THE PRIMARY CAUSE OF ACTION RELATES TO PROFESSIONAL SERVICES, AN SOW, OR DELIVERABLES, THEN, TOGETHER WITH ALL OTHER CAUSES OF ACTION, THE PROFESSIONAL SERVICES FEES PAID TO ATL UNDER THE APPLICABLE QUOTE FOR THE RESPECTIVE SOW;

(iii) IF THE PRIMARY CAUSE OF ACTION RELATES TO MAINTENANCE & SUPPORT SERVICES, THEN, TOGETHER WITH ALL OTHER CAUSES OF ACTION, THE MAINTENANCE & SUPPORT SERVICES FEES PAID TO ATL WITHIN THE PRECEDING SIX (6) MONTHS; OR

(iv) FOR ANY OTHER PRIMARY CAUSE OF ACTION, THEN, TOGETHER WITH ALL OTHER CAUSES OF ACTION, ONE THOUSAND DOLLARS ($1,000).

8. TERMINATION

8.1. **Termination for Cause.** A Party may terminate the Agreement on thirty (30) days' (ten (10) days' for failure to make any payments due hereunder) prior written notice if the other Party (i) has committed a material breach of the Agreement and has failed, after thirty (30) day notice thereof, to cure such material breach within such notice period, or (ii) should become insolvent, file a voluntary petition in bankruptcy, be adjudicated a bankrupt, have a receiver appointed for the operation of its business, or make a material liquidation of assets. The termination right under clause (i) above may also

be exercised with respect to any Services to which such material breach relates. ATL may immediately terminate the Agreement upon written notice to Customer if Customer has committed a breach of Article 4 (Intellectual Property) of the Agreement.

8.2 **Termination for Convenience.** Either party may terminate this Agreement, for any or no reason, on ninety (90) days prior written notice to the other Party.

8.3. **Effect of Termination.** Upon termination of the Agreement for any reason, each Party shall immediately return to the other Party or destroy (at the other Party's option) any property belonging to the other Party that is in its possession or control (including Confidential Information). Notwithstanding anything to the contrary in the Agreement, upon termination by ATL pursuant to Section 8.1 or by Customer pursuant to Section 8.2, any unpaid fees owed by Customer hereunder immediately shall be due and payable and all rights and licenses granted to Customer hereunder immediately shall cease to exist.

8.3. **Survival of Provisions.** The Parties acknowledge and agree that Article 4 (Intellectual Property), Article 5 (Payment), Section 7.5 (Limitation of Liability), Article 8 (Termination), and Article 9 (General) shall survive termination of the Agreement.

9. GENERAL

9.1. **Force Majeure.** Neither Party will be deemed in default of the Agreement to the extent that performance of its obligations (other than payment of money) or attempts to cure any breach are delayed or prevented by reason of any event beyond the reasonable control of such Party, including any act of God (i.e., fire, earthquake, natural disaster), act of government (i.e., war, terrorism, embargo), or any other act or circumstance that is beyond the reasonable control of such Party, provided that such Party gives the other Party prompt written notice thereof. Any delays caused by Customer which impact costs associated with any Professional Services will result in additional Professional Services fees.

9.2. **Equitable Relief.** Customer acknowledges and agrees that if it breaches the provisions of Article 4 (Intellectual Property) damages would be difficult if not impossible to ascertain. As a result of the immediate and irreparable damage and loss that may be caused to ATL for which it would have no adequate remedy, in addition to and without limiting any other remedy or right it may have, ATL shall be entitled to seek an injunction or other equitable relief in any court of competent jurisdiction (without the need of posting a bond) enjoining any such breach.

9.3. **Assignment.** Customer may not assign or transfer the Agreement (or any right herein) without the prior written consent of ATL. ATL reserves the right to assign the Agreement. The Agreement shall bind and inure to the benefit of the Parties and their successors and permitted assignees. In the event of a permitted assignment, the assigning Party shall provide written notice to the other Party.

9.4. **Counterparts.** The Agreement may be executed by facsimile or other electronic means, and in one or more counterparts, each of which shall be deemed to be an original, but all of which will together constitute one and the same Agreement. Any and all previous agreements and understandings between the Parties regarding the subject matter hereof, whether written or oral, are superseded by this Agreement. Customer agrees that any terms or conditions in a purchase order or other document issued by Customer to ATL regarding the Software or Services are void and of no force and effect. The headings in the Agreement are solely for convenience and in the event of an ambiguity or question of intent or interpretation arises, the Agreement shall be construed as drafted in English without regard to any translations, and as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any provisions of the Agreement. If any provision in an SOW or Quote conflicts with the terms of the Agreement, the terms of the Agreement will control, unless the provision specifically refers to and expressly overrides the conflicting terms of the Agreement. In the event any provision in an SOW conflicts with any provision in the corresponding Quote, the provision(s) within the Quote shall prevail.

9.5. **Waiver; Amendments** No failure of either Party to exercise any power or right granted hereunder or to insist upon strict compliance with any obligation hereunder shall constitute a waiver of the rights of such Party to demand full and exact compliance with the terms of the Agreement, The Agreement shall not be amended or modified, or any term or condition waived, except by written instrument that has been duly executed by the signature of an authorized representative of each Party. Each Party is hereby put on notice that any individual purporting to amend or modify this Agreement by conduct manifesting assent is not authorized to do so.

9.6. **Relationship of Parties.** Both Parties agree that they are independent entities. Nothing in the Agreement shall be construed to create a partnership, joint venture, fiduciary, or agency relationship between the Parties. Each Party is responsible for the supervision, management and direction of its own employees. Each Party is responsible for the payment of compensation to its employees and for any injury to them occurring in the course of their employment and neither Party shall be responsible for the supervision, management and direction of the employees of the other Party.

9.7. **Judicial Modifications.** THE PARTIES INTEND THAT THE AGREEMENT IS VALID AND SHALL BE ENFORCED AS WRITTEN. In the event that any provision of the Agreement for any reason is held to be invalid, illegal or unenforceable in any respect, it shall be enforced, modified, or replaced by another equivalent provision to the extent necessary to render it valid, legal and enforceable under the circumstances and to the extent consistent with applicable law, while reflecting as closely as possible the original intent of the Parties as expressed or implied therein. If, however, such enforcement, modification or replacement is not permissible under applicable law, then it shall be severed from the Agreement. The invalidity, illegality or unenforceability of the provision, or the enforcement, modification, replacement or severance thereof, as the case may be, shall not affect the validity, legality or enforceability of the other provisions of the Agreement, which shall remain in full force and effect.

9.8. **Notices.** All notices, requests and demands, other than invoices and routine communications under the Agreement, shall be in writing and shall be deemed to have been duly given when delivered, or when transmitted by confirmed facsimile or email, or one (1) business day after being given to an overnight courier with a reliable system for tracking delivery, or five (5) business days after the day of certified mail, return receipt requested, postage prepaid, and addressed to the contact person at the address set forth below the Party's signature. Either Party may from time to time change the individual(s) to receive notices under this Section and its address for notification purposes by giving the other prior written notice as provided in this Section of the new individual(s) and address and the date upon which the change will become effective.

-- **END OF DOCUMENT** --

Each Party warrants that its respective signatory whose signature appears below is duly authorized by all necessary and appropriate corporate action to execute the Agreement on behalf of such Party.

Accelerated Technology Laboratories, Inc.				
By:			By	
Name:			Name:	
Title:			Title:	
Date:			Date:	
Notice Contact:			**Notice Contact:**	
Attn:			Attn:	
Address:			Address:	
Phone:			Phone:	
Fax:			Fax:	
Email:			Email:	

Exhibit A
Maintenance & Support Services

Overview

ATL is dedicated to the success of our customers by providing timely responses to problems with ATL software products. ATL's highly skilled support engineers are well versed in ATL's software products. ATL's support services group is a global organization to ensure that support is available whenever it is needed. Maintenance services are subject to the ATL Support Website located at support.atlab.com.

Maintenance Service Levels

ATL BRONZE (5% of Software List Price) (1 Year from Anniversary Date) - Includes Technical Support Via a toll-free number (5 incidents/year), Programming Support (Available at Additional Cost), Remote Support, Access to Web Site User Support Area and Software Service Packs, LIMS Solutions Newsletter

ATL SILVER (10% of Software List Price) (1 Year from Anniversary Date) - Includes Technical Support Via a toll-free number (10 incidents/year), Programming Support (Available at Additional Cost), Remote Support, Access to Web Site User Support Area and Software Service Packs, LIMS Solutions Newsletter

ATL GOLD (18% of Software List Price) (1 Year from Anniversary Date) - Includes LIMS account manager, Unlimited Technical Support Via a toll-free number, Programming Support (2 hours included at no charge), Remote Support (available at a reduced rate from Silver), Access to Web Site User Support Area, Software Service Packs, Product Upgrades, Migration Credit, and LIMS Newsletter

ATL PLATINUM (35% of Software List Price) (1 Year from Anniversary Date) - Includes Dedicated LIMS account manager, Dedicated Software Engineer, Annual LIMS Check-up, Annual LIMS Training to ATL facility to Train LIMS Administrators, Unlimited Technical Support Via a toll-free number, Programming Support (10 hours included at no charge), Remote Support (available at a reduced rate from Gold), Access to Web Site User Support Area, Software Service Packs, Product Upgrades, Migration Credit, and LIMS Newsletter

Table Summarizing Support Options

ATL Support Type	Bronze	Silver	Gold	Platinum
Technical Support	5 Incidents	10 Incidents	Unlimited	Unlimited
Programming Support (Off-Site)	Available	Available	Included (2 hours Free)	Included (10 hours free)
Remote Support	Available	Available	Available	Available
ATL Web Support Site, FTP Support Area, Service Packs	Included	Included	Included	Included
LIMS Solutions Newsletter	Included	Included	Included	Included
Product Upgrades	Not Included	Not Included	Included	Included
Cost/1 Year (Software)	5%	10%	18%	35%
Account Manager	Not Included	Not Included	Included	Included
Software Engineer (cell phone) Extended Business Hrs.	Not Included	Not Included	Not Included	Included
Yearly LIMS Check-up	Not Included	Not Included	Not Included	Included
Web-based Training (quarter)	Not Included	Not Included	Included	Included
Advanced Programming LIMS Training	Not Included	Not Included	Not Included	Included
Migration Credit	Not Included	Included	Included	Included

Service Hours: 8am – 5pm ET, Monday – Friday, excluding holidays in the U.S.
Extended Hours: 8 am – 8pm ET Monday – Friday
Email: 24 Hours/Day, 7 Days/Week

Authorized Contacts:

The following two individuals who shall be eligible to open support requests and serve as authorized contacts on Maintenance & Support Services issues between ATL and Customer:

Primary Authorized Contact:	Secondary Authorized Contact:
Name:	Name:
Title:	Title:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
Email:	Email:

Customer may update either or both contacts upon written notice to ATL in accordance with Section 9.9 of the Agreement.

Disclaimer: ATL reserves the right, at its discretion, to change the Maintenance & Support Services and the policies within this Exhibit or the ATL Support Website at any time based on prevailing market practices and the evolution of our products. Changes have no impact during any Maintenance Term for which Maintenance fees have already been paid.

- Annual maintenance terms for all ATL software product line division licenses must be consolidated and be coterminous. Only one maintenance invoice will be prepared and sent to the one entity for payment of that invoice. Subsequent Maintenance & Support Services purchased or acquired will be billed on a pro-rata basis for the initial period to then align its renewal with the then existing Maintenance & Support Services on account for other ATL Technology enjoyed by the Customer.

3 Maintenance

3.1 Severity Level Definitions

"Severity 1" is an emergency production situation where the Licensor Software is totally inoperable or fails catastrophically and there is no workaround;

"Severity 2" is a detrimental situation (and there is no workaround) where (a) performance degrades substantially under reasonable loads causing a severe impact on use or (b) the Licensor Software is usable but materially incomplete;

"Severity 3" is where the Licensor Software is usable, but does not provide a function in the most convenient manner; and

"Severity 4" is a minor problem or documentation error, which is reasonably correctable by a documentation change or by a future maintenance release from ATL.

3.2 Scope

ATL will use commercially reasonable efforts to resolve matters according to the support level purchased, the impact on customer's business, and the problem Severity level determined by ATL. Customer will use commercially reasonable efforts to provide: (a) a detailed problem description; (b) a method for repeatedly reproducing the problem; and (c) reasonably continuous access to a Customer authorized contact. During the Maintenance Term, Customer authorized contacts as applicable for the Maintenance & Support Services level selected in the applicable Quote may notify ATL's Technical Support Center of an error, defect, or malfunction in the Software. Maintenance & Support Services include the right to use Updates as replacements for existing copies, whether provided under maintenance, Warranty or any other reason by ATL, or ATL's authorized resellers or distributors (if applicable); Updates are subject to Customer's license agreement limitations and restrictions. Subject to the quantity of ATL Software licensed and payment of any applicable Maintenance & Support Services fees, Customer's right to use Updates extends to any supported platform then currently available for each discrete Software product under Maintenance & Support Services agreement. Updates may include new or additional platforms that are deemed (at ATL's sole discretion) to have no more than a minimum difference in price, features and functionality from previously available platforms.

3.3 Limits

Customer must purchase the same service level of Maintenance & Support Services for all quantities of ATL Technology products that it has licensed. Maintenance & Support Services fees are based on cumulative license fees paid. Maintenance & Support Services do not include support for any non-ATL software, custom configuration, product modification, new products and functionality for which ATL is charging an additional license fee, services at a Customer site, any work product provided under Professional Services or for ATL Software products with non-matching service levels. ATL reserves the right, following express notice by ATL, to make fixes only to the most current version of the relevant Software, and may elect, at its discretion, to make fixes generally available for minor release versions or the latest service pack for a supported version. In the event that a request for Maintenance & Support Services reveals that the cause of the problem is not an error, defect or malfunction in the unmodified ATL Software, Customer shall pay ATL for its work on a time and materials basis, plus meals, lodging, travel and other reasonably necessary out-of-pocket expenses.

3.4 Perpetual Term Licenses

The Initial Maintenance Term shall be for one year commencing on the Effective Date of the applicable Quote, unless otherwise stated in the Quote. In the event Customer elects to renew Maintenance & Support Services (subject to any rights of termination as set forth in the Agreement), such Services will be renewed for successive one (1) year terms and the annual Maintenance & Support Services fee for the first renewal term shall not increase by more than the percentage rate change in the Consumer Price Index for the 12 month period immediately preceding the anniversary date of Maintenance. Maintenance & Support Services fees for subsequently acquired Licensor Software will be prorated to expire with the then-current annual Maintenance Term.

3.5 Equipment

Unless expressly stated otherwise, in writing, in the applicable Quote, ATL may facilitate the Customer's acquisition, receipt, set-up and/or use of Equipment, but the Equipment's hardware manufacturer and/or such manufacturer's designated representative(s) shall be solely responsible for such Equipment, including but not limited to its condition, shipping, set-up, installation, maintenance, support, and performance. ATL does not warrant or support the Equipment.

To the extent that ATL does expressly assume any support obligations over the Equipment, Customer acknowledges and agrees that ATL may subcontract Maintenance & Support Services for the Equipment, in ATL's sole discretion, to the manufacturer and/or a third-party authorized provider. ATL will remain responsible for ensuring that its Maintenance & Support Services obligations under this Agreement are fulfilled.

ATL reserves the right, as a condition precedent to the commencement of any Maintenance & Support Services, to conduct an onsite, physical, certification inspection of the Equipment when: a) Customer changes or relocates the Equipment, b) prior to the renewal of Maintenance & Support Services on the Equipment, or c) where Maintenance & Support Services were not purchased when the Equipment was initially purchased or leased from ATL.

3.6 Support Limitations

At ATL's discretion Maintenance & Support Services will be provided by phone, using remote diagnosis and/or other service delivery methods. ATL will determine the appropriate delivery method required. Services such as the following, but not limited to, are excluded from Maintenance & Support:

- Diagnosis or maintenance at the Customer site. If onsite diagnosis or maintenance is required, and available by ATL, Customer will be billed at the applicable standard Professional Services rates;
- Set-up and installation of the replacement Equipment or replacement parts at the Customer site;
- Recovery of the operating system, other software, and data;
- Troubleshooting for interconnectivity or compatibility problems;
- Services required due to failure of Customer to incorporate any system or software fix, repair, patch, or modification provided to the Customer by ATL;
- Services required due to failure of the Customer to take avoidance action previously advised by ATL;
- User preventative maintenance.

Maintenance & Support Services are not provided for the following:

- Damage caused by failure of Customer to follow manufacturer's recommended maintenance or operating specifications;
- Damage due to war or nuclear incident, terrorism, unauthorized attempts to repair Equipment or Equipment previously repaired by an unauthorized technician or user;
- Data, business interruptions, obsolescence, cosmetic damage, rust, change in color, texture or finish, wear and tear, gradual deterioration or any damage that does not affect the Equipment functionality;
- Fraud, fire, theft, unexplained or mysterious disappearance, misuse, abuse or willful act;
- Alteration or modification of the Equipment in any way;

- Transit or relocation of Equipment by Customer, including any damages occurring while in transit or related to such relocation, and services accompanying or related to transit or relocation of the Equipment;
- Power surge or failure;
- Normal wear and tear.

3.7 Customer Responsibilities

- The Customer will be required, upon ATL's request, to support resolving any problem reported remotely by (a) providing all information necessary for ATL to deliver timely and professional remote support and/or to enable ATL to determine the level of support eligibility; (b) starting self tests and/or other diagnostic tools and programs; and (c) performing other reasonable activities to help ATL identify or resolve the problem.
- Customer must acknowledge receipt of replacement items by signing freight carrier bill at time of delivery.
- Customer is responsible to install customer replaceable parts and replacement Technology and Equipment in a timely manner;
- Customer shall maintain a backup copy of all software and data. ATL recommends regular backups;
- Customer shall restore software and data on the Equipment, as necessary, after any repair or replacement;
- Customer is responsible for the installation of any software not provided by ATL with the Equipment and insure all software installed on the Equipment is appropriately licensed.

3.8 Reinstatement of Maintenance

Reinstatement of Maintenance is subject to payment of Maintenance & Support Services fees for any period during which Maintenance & Support had lapsed, a reinstatement fee, plus payment for the 12 month period commencing with the date Maintenance & Support Services are reinstated, as further described in Section 3.1 of the Agreement.

3.9 Non-Continuous Coverage

In the event Customer elects not to maintain continuous Maintenance & Support, ATL may, at its discretion, refuse to provide any Maintenance & Support Services to Customer until payment for the period of discontinuity is made current, as well as any penalties, as described in the Section 3.1 of the Agreement. ATL reserves the right to suspend Maintenance & Support Services while any accrued Maintenance & Support Services fees or other fees hereunder remain unpaid.

4 ATL Support Web

4.1 Opening a Customer Support Request

There are three ways to report a problem:

- ATL Support Web Cases reported online are automatically entered into ATL's Call Tracking system and assigned a Customer Support (CS) number. ATL requires that all Severity 1 cases be followed up with a phone call to our Technical Support Center to ensure immediate attention to your issue.
- Email Support at support@atlab.com and include name, company, address, version of software, detailed description of the issue and any screen shots
- Phone. Each ATL customer is given Technical Support Center information that it can contact to request support via phone. A customer support request will be created in ATL's call tracking system and a CS number is provided.

4.2 Processing a Customer Support Request

Once a customer support request is submitted, the ATL support specialist will review, access and assign the appropriate severity level. All severity 3 and 4 calls will be assigned to the appropriate product and workgroup where our technical support engineers will start working on the call on a First in – First out (FIFO) basis. The ATL Technical Support Center will notify support managers of any CSs that are assigned to Severity 1 or 2, so that they are handled in an escalated manner. The ATL support engineer will communicate with Customer until the issue is resolved. Depending on the nature of the Customer Support Request, it may be resolved by a support engineer or logged as a bugs/enhancements item with product engineering.

ATL support level and responsibilities:

- First level (Technical Assistance Center):

- Review Customer Support Requests reported by Web, Email or phone from a customer authorized contact
- Validate customer maintenance status, product entitlement and check for any special handling required.
- Identify type of request, problem definition, configuration, products, product versions and platforms.
- Determine severity of the problem and execute any escalation procedures necessary.
- Direct problems for resolution to engineers

- Second level (Product Support):

- Confirm problem and configuration used by Customer
- Evaluate against known problems or issues
- Stage the problem
- Reproduce problems and provide workarounds
- Escalate to engineering where required to develop patches and fixes
- Keep the CS updated at all times within the Call Tracking system

- Keep Customer's Authorized Contact updated on the progress

- **Third level (Engineering):**
  - Develop fixes as needed
  - Test and verify functionality and performance
  - Update the source code control system as needed
  - Ensure patches and fixes are incorporated into a future product release

4.3 Escalations

Special procedures apply to Customer Support escalations. An escalated issue is generally one of the following:

- No response to a problem reported, within the designated time given by the call response coordinator or technical engineer;
- Response times out of severity guidelines;
- Customer is dissatisfied with Customer Support resolution that has been given and wants the problem reported brought to the attention of ATL's management.

4.4 Creating, Updating and Tracking a Customer Support Request

All customer support requests are created and assigned a unique ID number. The ID number is used to track each incident and should be referred to in each correspondence.

4.5 User Profile

Authorized contacts are able to change their login password, update their phone numbers, select their time zone and subscribe to LIMS Solutions Newsletter in this section.

Quote
Software and Services Fees

This Quote is governed by the terms of the **Master Software & Services Agreement** effective _____ _____, 20___ by and between _____, a _____, having a principal place of business at _____ and Accelerated Technology Laboratories, Inc., a North Carolina corporation, having its principal place of business at 496 Holly Grove School Road, West End, NC (the "**Agreement**").

Statement of Work
Professional Services and Deliverables

This Statement of Work is governed by the terms of the Master Software & Services Agreement effective _____, 20___ by and between _____, a _____, having a principal place of business at _____ and Accelerated Technology Laboratories, Inc., a North Carolina corporation, having its principal place of business at 496 Holly Grove School Road, West End, NC (the "Agreement").

CHANDLER arizona
Community of Innovation

City Council Memorandum **Information Technology** **Memo No.** N/A

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Debra Stapleton, Assistant City Manager Sandip Dholakia, Chief Information Officer
From:	Andy Sandoval, IT Principal Systems Specialist
Subject:	Purchase of VMware Licenses and Annual Support

Proposed Motion:

Move City Council approve the purchase of VMware licenses and annual support utilizing the State of Arizona Contract No. ADSPO16-098163 with Dell in the amount of $134,366.

Background/Discussion:

The City of Chandler IT Department leverages VMware technologies to create efficiencies in infrastructure resources for applications and critical City services. Staff is recommending this purchase of additional VMware software to support the Dell/EMC VXrail solution. That solution will be providing server and storage resources for Citywide applications such as Lucity, ESRI GIS, MyTimekeeper, Accela, etc. This purchase will be co-termed to the existing VMware maintenance and renewed annually.

Evaluation:

The State of Minnesota competitively solicited and awarded a contract for computer storage equipment and related peripherals and services on behalf of the National Association of State Procurement Officials (NASPO), to Dell, and the State of Arizona has adopted this contract. The City has a current Intergovernmental Agreement with the State of Arizona allowing for the cooperative use of the State's contracts.

Staff recommends cooperative use of this contract because it allows the City to take advantage of cumulative volume discounts as well as additional promotinal pricing offers. The State's contract is valid through July 31, 2021.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
403.1290.5419.0.0.0	Technology Replacement	N/A	134,367	N

ITEM 14

CHANDLER arizona
Community of Innovation

City Council Memorandum **Management Services** **Memo No.** 21-040

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director
From: Danielle Wells, Revenue and Tax Manager
Subject: Series 12, Restaurant Liquor License application for Amy S. Nations, Agent, Sonas Tavern #1 Inc., dba Rosati's Pizza

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Proposed Motion:

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132127, a Series 12, Restaurant Liquor License, for Amy S. Nations, Agent, Sonas Tavern #1 Inc., dba Rosati's Pizza, located at 1050 E. Ray Road, Suite 2, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 300287 L12.

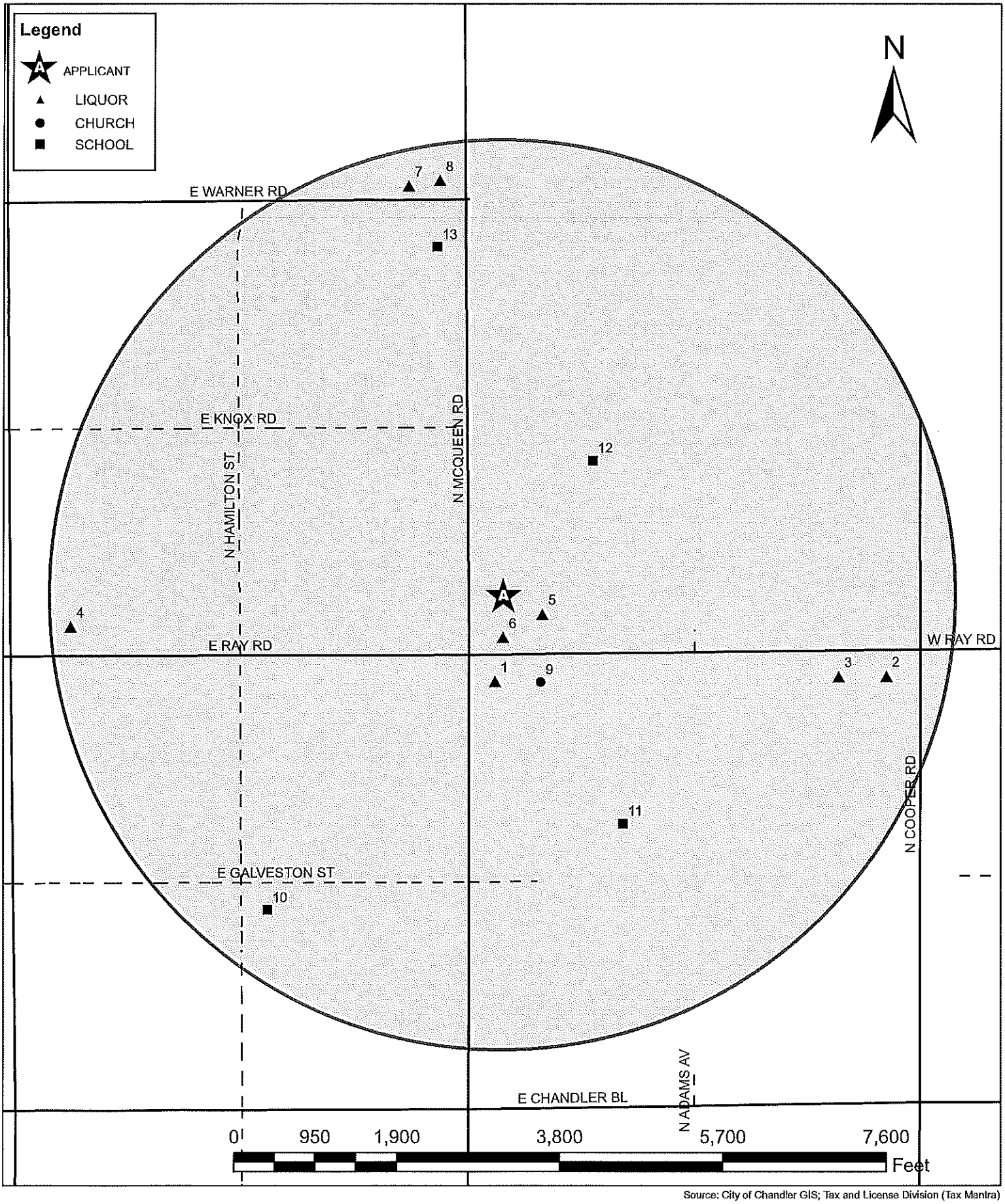
Discussion:

This application for a liquor license was posted for hearing on February 25, 2021.

The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 12, Restaurant Liquor License, the business may sell all liquors for on-premise consumption only, with a minimum of 40% of the gross receipts from the sale of food.

Attachments

A-Map
B-Floor Plan



Source: City of Chandler GIS; Tax and License Division (Tax Mantra)

Liquor License Map - 1050 E. Ray Road Suite 2

Chandler + Arizona

This map shows the locations of all churches, schools and spirituous liquor outlets within a one (1) mile radius of the proposed location.

Please refer to attached list for additonal information

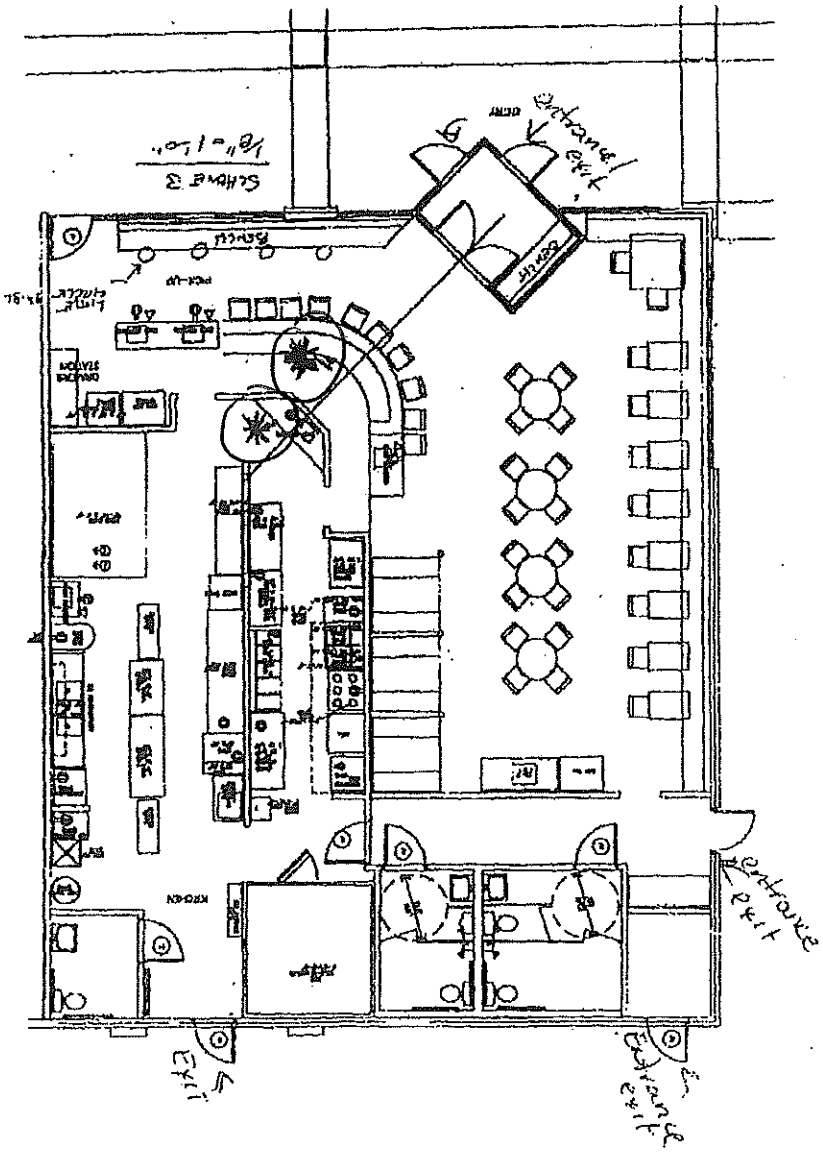
A Rosati's Pizza
1 Cvs/Pharmacy #07849
2 Chevron
3 Nishikawa Ramen
4 Food City #26
5 Safeway Food And Drug #1605
6 Hot Wok
7 Zesty Zzeeks Pizza & Wings Iii
8 Cvs/Pharmacy #3143
9 Lds Church
10 Galveston Elementary School
11 Sanborn Elementary School
12 Shumway Elementary School
13 Legacy Traditional School

NOTE: The information provided on this page represents all active Liquor Licenses which may include businesses in transition to a new owner/use. Therefore, the prior business name may still be listed since the license has not been final closed.

3000 SF

'20 DEC 31 Liqr. Lic. PM 3:21

* Liquor Storage



ITEM 15

City Council Memorandum **Management Services** **Memo No.** 21-041

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director

From: Danielle Wells, Revenue and Tax Manager

Subject: License Series 12, Restaurant Liquor License application for Raymond F. Sanchez, Agent, GTC Chandler LLC, dba Good Time Charli's

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Proposed Motion:

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132752, a Series 12, Restaurant Liquor License, for Raymond F. Sanchez, Agent, GTC Chandler LLC, dba Good Time Charli's, located at 6045 W. Chandler Boulevard, Suite 7, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 300408 L12.

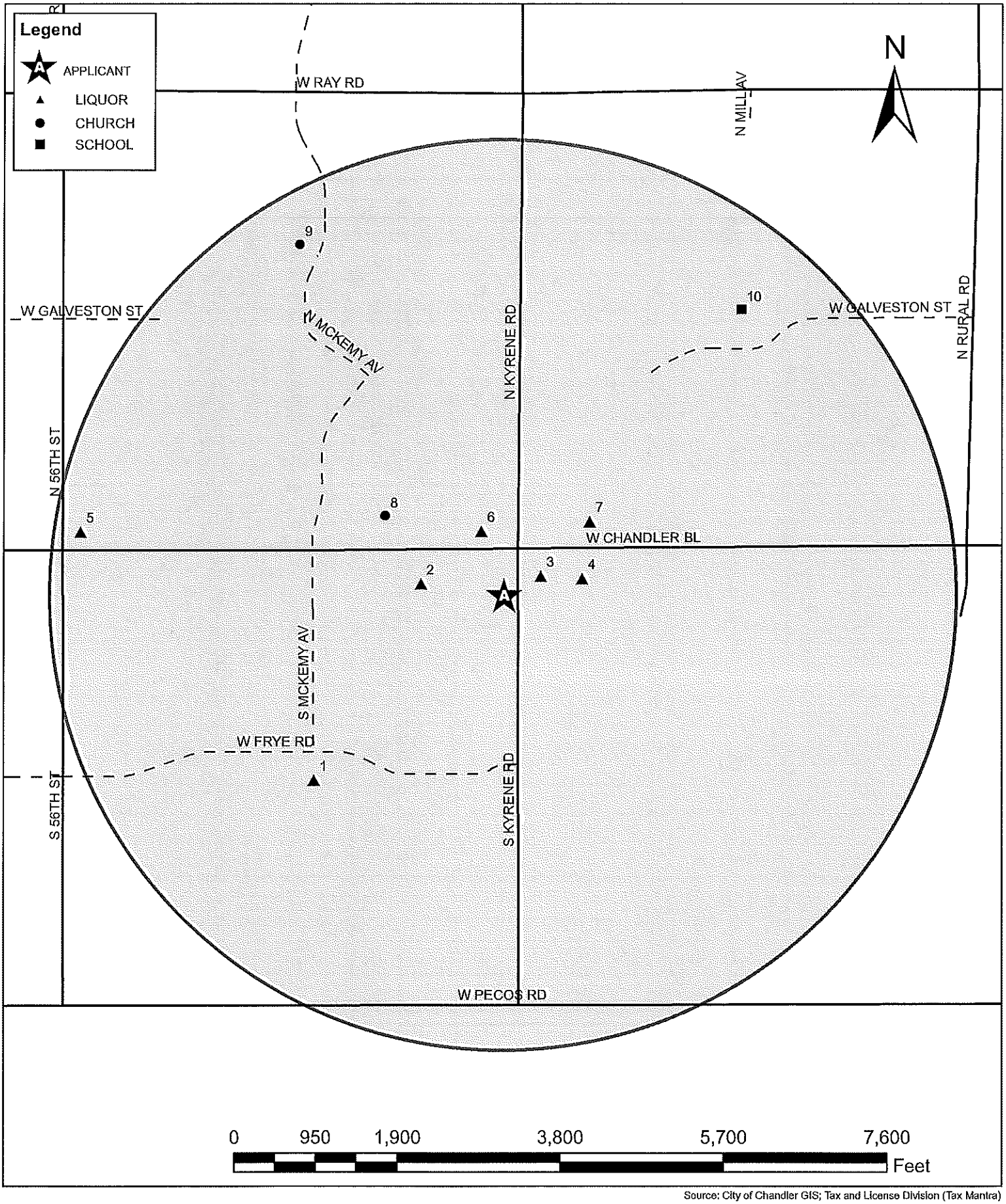
Discussion:

This application for a liquor license was posted for hearing on February 25, 2021.

The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 12, Restaurant Liquor License, the business may sell all liquors for on-premise consumption only, with a minimum of 40% of the gross receipts from the sale of food.

Attachments

A-Map
B-Floor Plan



Source: City of Chandler GIS; Tax and License Division (Tax Mantra)

Chandler + Arizona

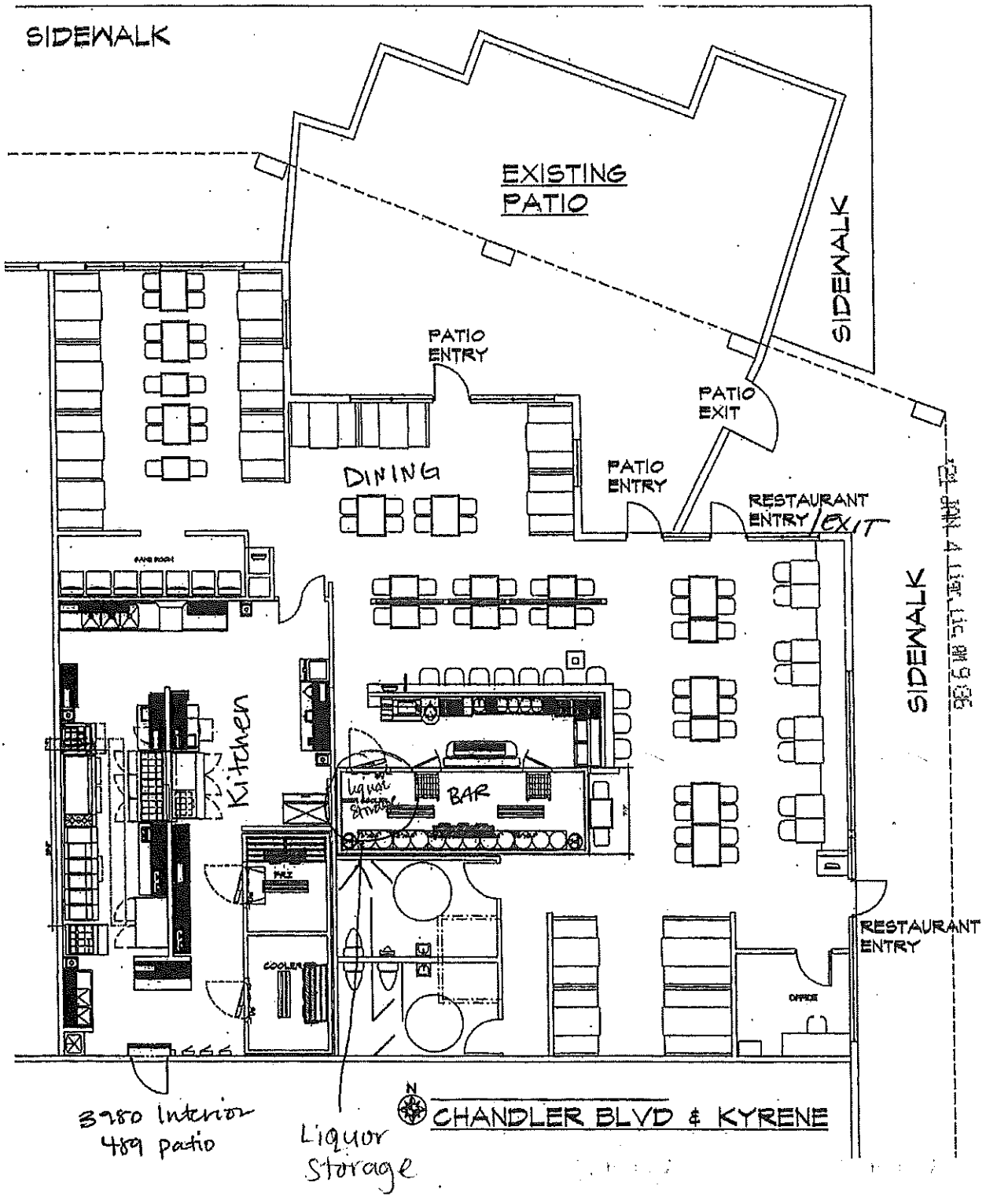
Liquor License Map - 6045 W. Chandler Boulevard Suite 7

This map shows the locations of all churches, schools and spirituous liquor outlets within a one (1) mile radius of the proposed location.

Please refer to attached list for additonal information

A Good Time Charli's
1 Arizona Mead Company
2 Bowlero Chandler
3 Cvs/Pharmacy #3965
4 Wingstop
5 Circle K Stores Inc 5032
6 Ocean Blue Caribbean Restaurant And Bar Corp
7 Us Egg Chandler
8 Alive Community Church
9 Adobe Montessori School
10 Kyrene De La Mirada Elementary School

NOTE: The information provided on this page represents all active Liquor Licenses which may include businesses in transition to a new owner/use. Therefore, the prior business name may still be listed since the license has not been final closed.


SIDEWALK
EXISTING PATIO
SIDEWALK
PATIO ENTRY
PATIO EXIT
DINING
PATIO ENTRY
RESTAURANT ENTRY / EXIT
SIDEWALK
Kitchen
BAR
liquor storage
RESTAURANT ENTRY
CHANDLER BLVD & KYRENE
3780 Interior
489 patio
Liquor Storage

ITEM 16

CHANDLER arizona
Community of Innovation

City Council Memorandum **Management Services** **Memo No.** 21-042

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director
From: Danielle Wells, Revenue and Tax Manager
Subject: New License Series 6, Bar Liquor License application for Poonam Manek, Agent, Yaashi Sibs Inc., dba 810 Billiards & Bowling

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Proposed Motion:

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132056, a Series 6, Bar Liquor License for Poonam Manek, Agent, Yaashi Sibs Inc., dba 810 Billiards & Bowling, located at 3455 W. Frye Road, Suite 2, and approval of the City of Chandler, Series 6, Bar Liquor License No. 300410 L6.

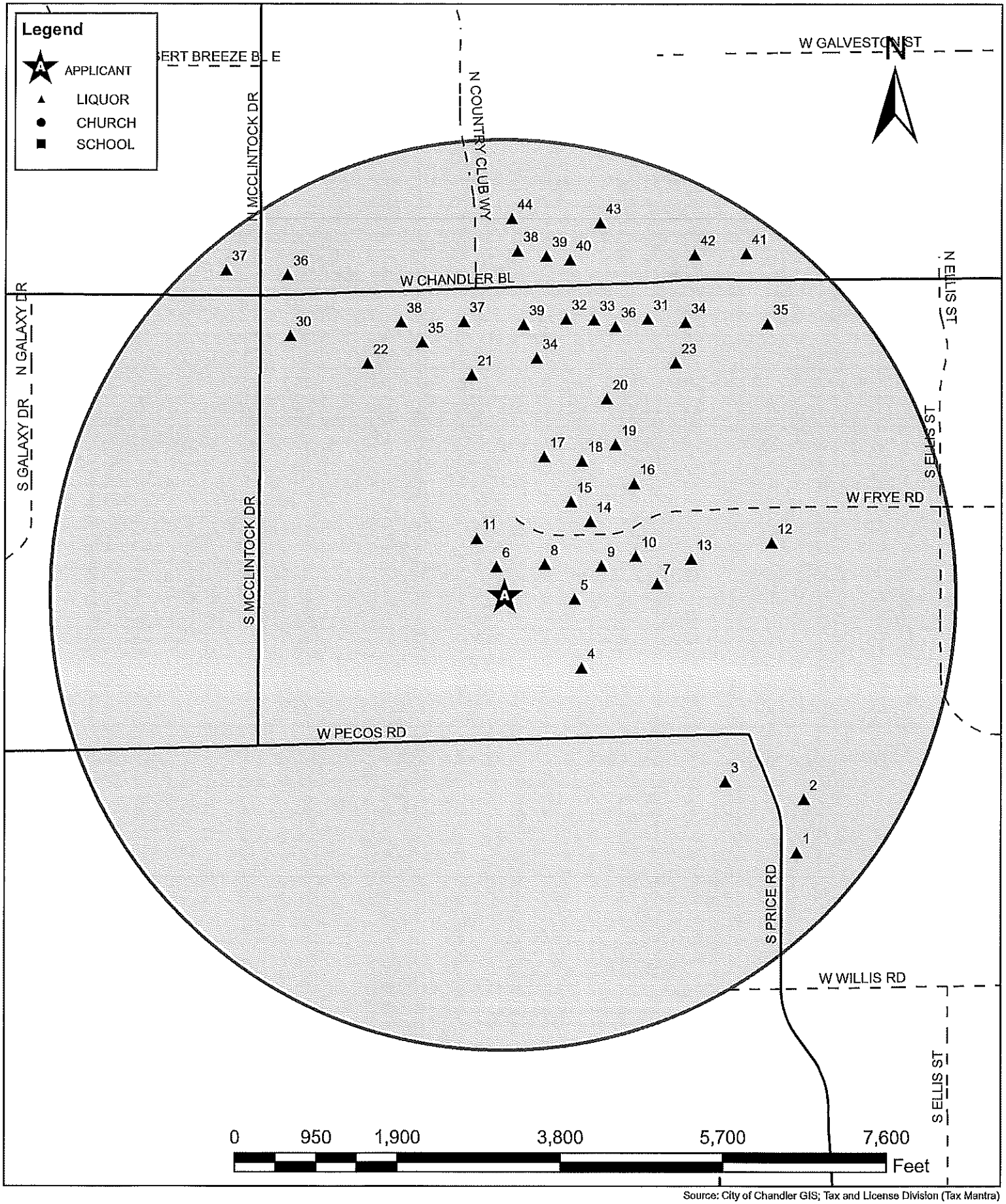
Discussion:

This application for the transfer of a liquor license was posted for hearing on February 25, 2021.

The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 6, Bar Liquor License, the business may sell all alcoholic beverages for on- or off-premise consumption.

Attachments

A-Map
B-Floor Plan



Source: City of Chandler GIS; Tax and License Division (Tax Mantra)

Chandler + Arizona

Liquor License Map -3455 W. Frye Road Suite 2

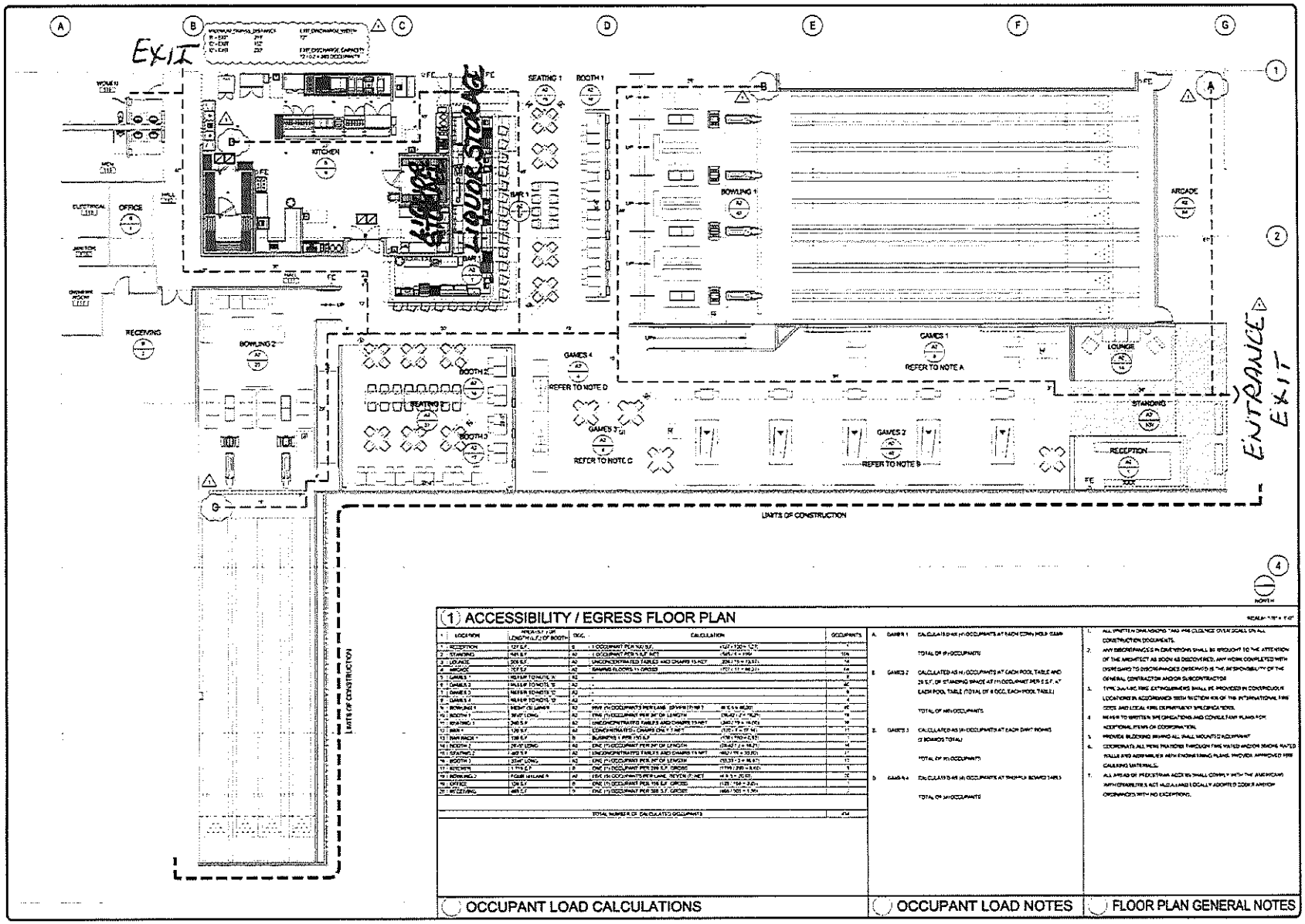
This map shows the locations of all churches, schools and spirituous liquor outlets within a one (1) mile radius of the proposed location.

Please refer to attached list for additonal information

A 810 Billiards & Bowling
1 Parlay Kitchen And Cocktails
2 Drury Inn & Suites
3 Courtyard/Fairfield Inn & Suites By Marriott
4 Costco Wholesale #736
5 Target Stores #T-1838
6 Choolha Indian Room
7 Sicilian Butcher
8 Someburros Mexican Food
9 Cambria Market
10 Cambria Hotel Phoenix Chandler
11 Chompie'S Restaurant
12 Hilton Hotel Phoenix/Chandler
13 Thirsty Lion Gastropub & Grill
14 Famous Dave'S
15 Harkins Chandler Fashion Center Cinemas LLC
16 Bj'S Restaurant & Brewery
17 Buffalo Wild Wings #247
18 California Pizza Kitchen
19 Old Spaghetti Factory
20 Cheesecake Factory
21 Element Hotel By Westin Chandler Fashion
22 Az Wine Distributors LLC
23 Benihana
24 Firebird Wood Fired Grill
25 Towneplace Suites
26 Howlers Restaurant And Sports Bar
27 Hyatt Place Phoenix/Chandler-Fashion Center
28 La Madeleine French Bakery & Cafe
29 Hop Social Tavern
30 Espos Mexican Food
31 The Keg Steakhouse & Bar
32 Chipotle Mexican Grill #1718
33 Pf Chang'S China Bistro
34 Chili'S Grill & Bar #879
35 Full Circle Auto Wash
36 Staybridge Suite Phoenix-Chandler
37 Circle K Store #9161
38 Abuelo'S Mexican Food Embassy
39 Olive Garden Italian Restaurant #1561
40 Red Robin Gourmet Burgers
41 Black Angus Steakhouse
42 Mimis Cafe
43 Pieology Pizzeria
44 Wal-Mart Supercenter #6480

NOTE: The information provided on this page represents all active Liquor Licenses which may include businesses in transition to a new owner/use. Therefore, the prior business name may still be listed since the license has not been final closed.

30,470 SF



(1) ACCESSIBILITY / EGRESS FLOOR PLAN

#	LOCATION	AREA/UNIT LOAD/LENGTH/# OF BOOTH	OCC.	CALCULATION	OCCUPANTS
1	RECEPTION	121 S.F.	B	1 OCCUPANT PER 100 S.F.	2
2	STANDING	1491 S.F.	A2	1 OCCUPANT PER 5 NET	299
3	LOUNGE	1006 S.F.	A2	UNCONCENTRATED TABLES AND CHAIRS 15 NET	68
4	ARCADE	1127 S.F.	A2	GAMING FLOORS 11 GROSS	103
5	GAMES 1	REFER TO NOTE A	A2	-	6
6	GAMES 2	SALES BY TO NOTE B	A2	-	20
7	GAMES 3	REFER TO NOTE C	A2	-	8
8	GAMES 4	REFER TO NOTE D	A2	-	4
9	BOWLING 1	MEDIA (5) LANES	A2	PER (5) OCCUPANTS PER LANE (5) NET	45
10	BOOTH 1	36'-0" LONG	A2	ENC (1) OCCUPANT PER 24" OF LENGTH	18
11	SEATING 1	240 S.F.	A2	UNCONCENTRATED TABLES AND CHAIRS 15 NET	16
12	BAR 1	126 S.F.	A2	CONCENTRATED CHAIRS ONLY 7 NET	11
13	BAR BACK 1	108 S.F.	B	BUSINESS 1 PER 100 S.F.	1
14	BOOTH 2	26'-0" LONG	A2	ENC (1) OCCUPANT PER 24" OF LENGTH	14
15	SEATING 2	462 S.F.	A2	UNCONCENTRATED TABLES AND CHAIRS 15 NET	31
16	BOOTH 3	33'-0" LONG	A2	ENC (1) OCCUPANT PER 24" OF LENGTH	17
17	KITCHEN	1 TYS S.F.	B	ENC (1) OCCUPANT PER 200 S.F. GROSS	5
18	BOWLING 2	4 LANE MEDIA 5	A2	ENC (5) OCCUPANTS PER LANE, RECVD (5) NET	25
19	OFFICE	124 S.F.	B	ENC (1) OCCUPANT PER 150 S.F. GROSS	1
20	WITCHING	465 S.F.	A	ENC (1) OCCUPANT PER 300 S.F. GROSS	2
				TOTAL NUMBER OF CALCULATED OCCUPANTS	412

OCCUPANT LOAD CALCULATIONS

A. GAMES 1 CALCULATED AS (1) OCCUPANTS AT EACH COIN HOLD GAME

TOTAL OF (6) OCCUPANTS

B. GAMES 2 CALCULATED AS (1) OCCUPANTS AT EACH POOL TABLE AND 20 S.F. OF STANDING SPACE AT (1) OCCUPANT PER 2 S.F. AT EACH POOL TABLE (TOTAL OF 6 OCC. EACH POOL TABLE)

TOTAL OF (20) OCCUPANTS

C. GAMES 3 CALCULATED AS (1) OCCUPANTS AT EACH DART BOARD (2 BOARDS TOTAL)

TOTAL OF (8) OCCUPANTS

D. GAMES 4 CALCULATED AS (4) OCCUPANTS AT EACH (2) BOARD DARTS

TOTAL OF (4) OCCUPANTS

OCCUPANT LOAD NOTES

1. ALL VALUES IN DRAWINGS TAKE PRECEDENCE OVER SCALES ON ALL CONSTRUCTION DOCUMENTS.
2. ANY DISCREPANCIES IN DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AS SOON AS DISCOVERED. ANY WORK COMPLETED WITH DISREGARD TO DISCREPANCIES OBSERVED IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR SUBCONTRACTOR.
3. TYPE 2A10BC FIRE EXTINGUISHERS SHALL BE PROVIDED IN CONSPICUOUS LOCATIONS IN ACCORDANCE WITH SECTION 906 OF THE INTERNATIONAL FIRE CODE AND LOCAL FIRE DEPARTMENT SPECIFICATIONS.
4. REFER TO WRITTEN SPECIFICATIONS AND CONSULTANT PLANS FOR ADDITIONAL ITEMS OR CLARIFICATION.
5. PROVIDE BLOCKING BEHIND ALL WALL MOUNTED EQUIPMENT.
6. COORDINATE ALL PENETRATIONS THROUGH FIRE RATED AND/OR SMOKE RATED WALLS AND ASSEMBLIES WITH ENGINEERING PLANS. PROVIDE APPROVED FIRE CAULKING MATERIALS.
7. ALL AREAS OF PEDESTRIAN ACCESS SHALL COMPLY WITH THE AMERICANS WITH DISABILITIES ACT AND ALL AND LOCALLY ADOPTED CODES AND/OR ORDINANCES WITH NO EXCEPTIONS.

FLOOR PLAN GENERAL NOTES

ARCHICON
Architecture & Interiors, L.L.C.
[illegible] WASHINGTON STREET
SUITE 220
PHOENIX, ARIZONA 85004
(602) 258-4026
FAX (602) 274-4370
www.ARCHICON.COM

810 BILLIARDS AND BOWLING
CHANDLER VILLAGE CENTER
3455 WEST FRYE ROAD
CHANDLER, ARIZONA 85048

85226

ACCESSIBILITY / EGRESS FLOOR PLAN

T02

2020.05.22

20 DEC 31 Lgk: Lic: AM 9:02

ITEM 17

CHANDLER arizona
Community of Innovation

City Council Memorandum **Management Services** **Memo No.** 21-043

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director
From: Danielle Wells, Revenue and Tax Manager
Subject: New License Series 12, Restaurant Liquor License application for Alvin Doi-Chih Hong, Agent, Paletas Betty LLC, dba Paletas Betty

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Proposed Motion:

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 132855, a Series 12, Restaurant Liquor License, for Alvin Doi-Chih Hong, Agent, Paletas Betty LLC, dba Paletas Betty, located at 96 W. Boston Street, and approval of the City of Chandler, Series 12, Restaurant Liquor License No. 130621 L12.

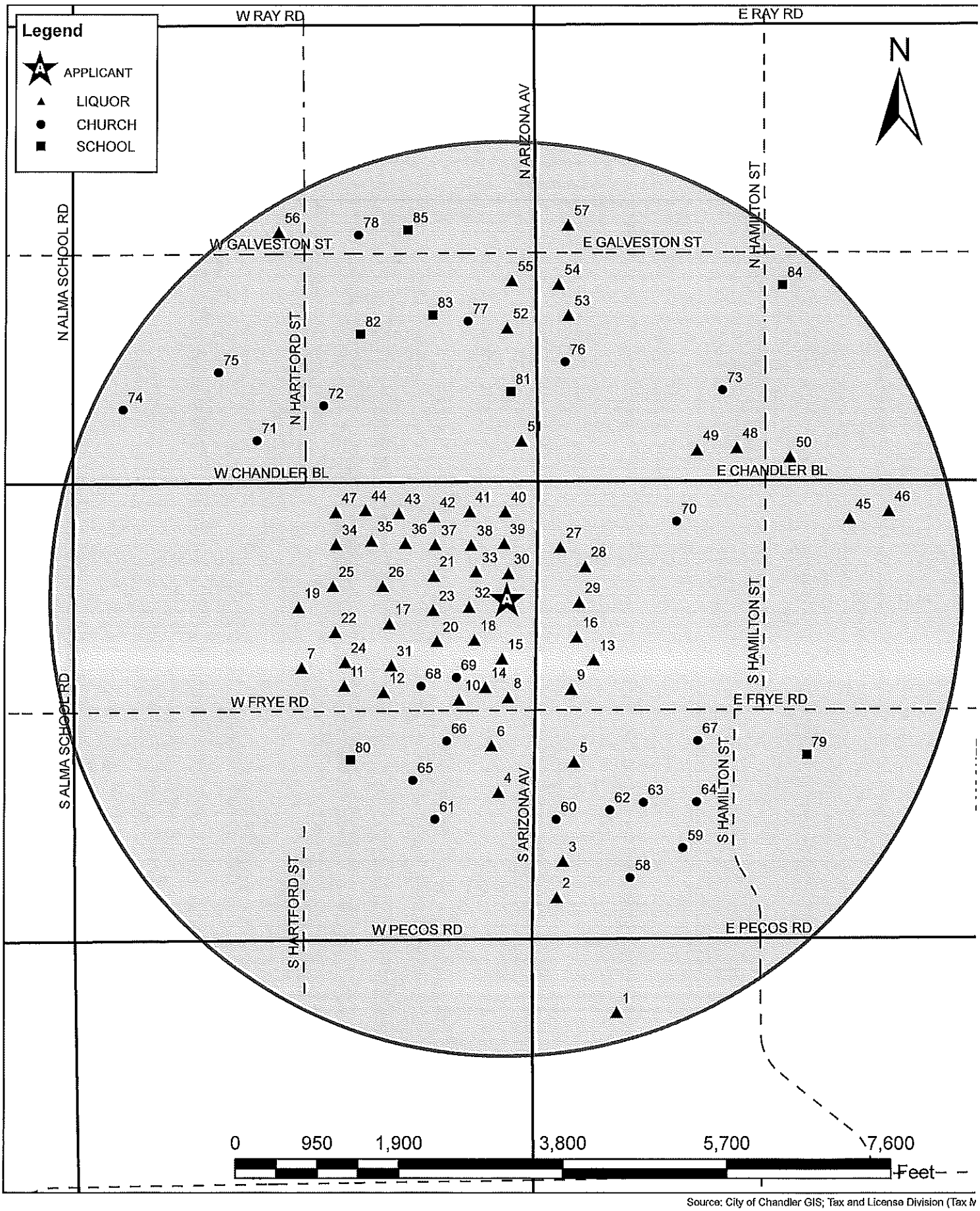
Discussion:

This application for a liquor license was posted for hearing on February 25, 2021.

The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 12, Restaurant Liquor License, the business may sell all liquors for on-premise consumption only, with a minimum of 40% of the gross receipts from the sale of food.

Attachments

A-Map
B-Floor Plan



Source: City of Chandler GIS; Tax and License Division (Tax lv

Liquor License Map - 96 W. Boston Street

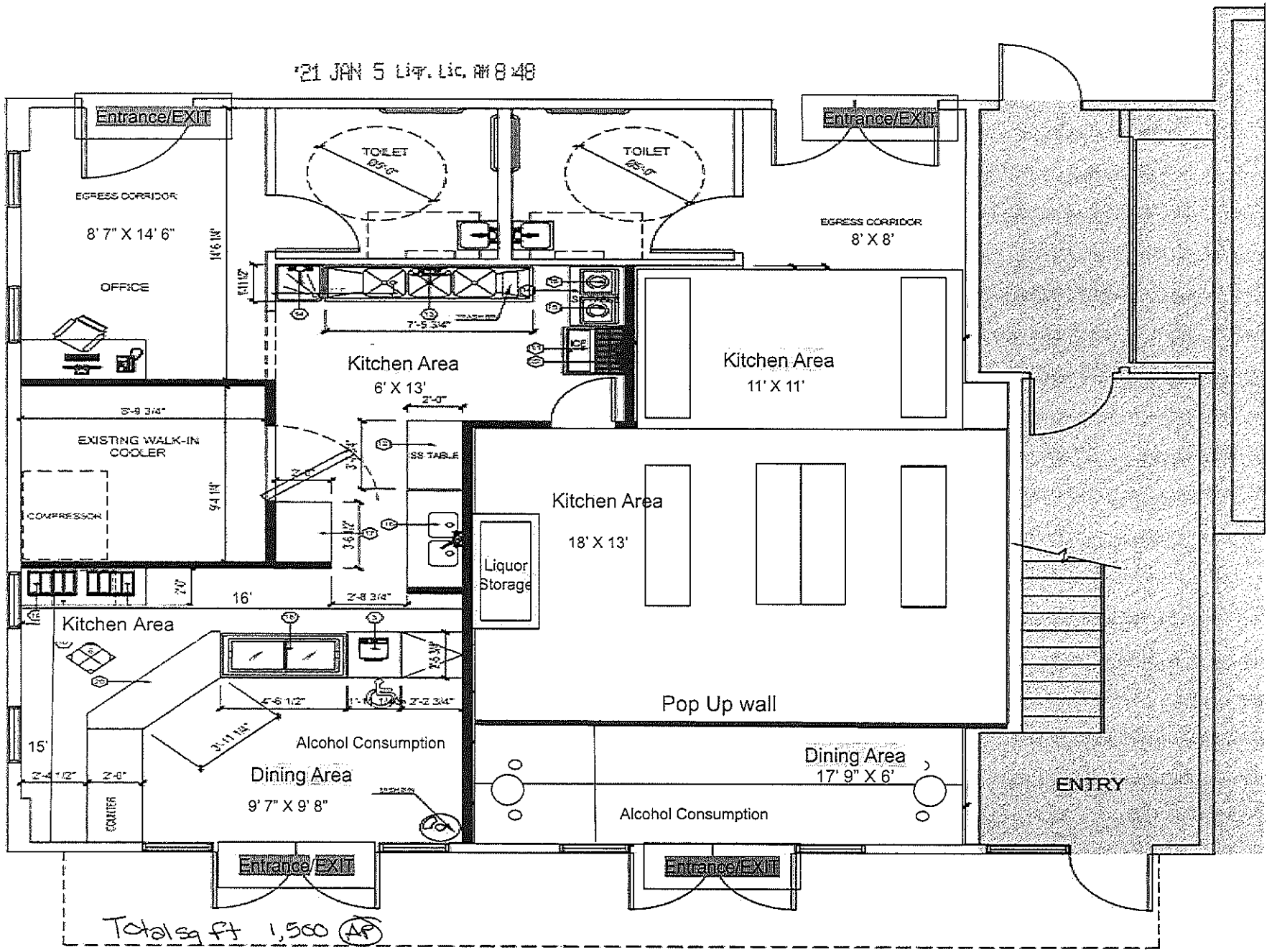
Chandler + Arizona

This map shows the locations of all churches, schools and spirituous liquor outlets within a one (1) mile radius of the proposed location.

A Paletas Betty
1 Walmart #2671
2 Veterans Of Foreign Wars #7401
3 El Herradero
4 Circle K Stores Inc #905
5 Payless Market
6 El Herradero Brothers Frye
7 Gadzooks Enchiladas And Soup
8 Sleepy Whale
9 Circle K Store #9187
10 Improvmania
11 Ghett Yo Taco
12 The Perch
13 Quarthaus
14 The Local Chandler
15 Downtown Chandler Steakhouse
16 Serrano's Mexican Food
17 Hilton Garden Inn Chandler Downtown
18 The Stillery
19 Jinya Ramen Noodle Bar
20 Charm Thai Cuisine
21 The Brickyard
22 Pedal Haus Brewery
23 Sasha'S Kitchen & Cocktails
24 Original Chop Shop Co
25 West Alley Bbq
26 Puro Cigar Bar
27 Inchin's Bamboo Garden
28 Soho 63
29 Tipsy Egg & The Uncommon
30 Cheba Hut
31 Bourbon Jacks Grill
32 Blacksheep Wine Bar & Merchant
33 Murphy'S Law Irish Pub
34 Mingle + Graze
35 Hidden House
36 San Tan Brewing Company Inc
37 Crust Simply Italian
38 Crowne Plaza - Chandler
39 Craft 64
40 Eastwind Sushi And Grill
41 Truland Burgers & Greens
42 Over Easy
43 San Marcos Golf Course
44 La Ristra
45 Singing Pandas Asian Restaurant & Bar
46 El Alamo Super Carniceria
47 Flix Brewhouse Az LLC
48 Rapid-O Mart
49 La Lumbrera Carniceria
50 Chandler Boulevard Lounge
51 Chandler Center For The Arts
52 Max And Teds 480
53 Chodang Tofu Restaurant
54 La Familia New Market
55 Chandler Liquors
56 Kwik Mart
57 Casa Maria Mexican Restaurant
58 Grace Memorial
59 Chandler Foothills Community Church
60 Methodist Church
61 Chandler Church
62 Mount Olive Missionary Baptist Church
63 Pentacost Church of Jesus Christ
64 Centro De Alabanza Juda
65 Missionary Baptist Church
66 Azcend
67 Door Christian Center
68 Church of God
69 Iglesia Del Nazareno
70 Centro Evangelistico Church of God
71 Kingdom Hall Church
72 Church of Nazarene
73 East Valley Apostalic Church
74 St Matthews Episcopal Church
75 Holy Trinity Lutheran Church
76 LDS Seminary
77 International Assembly of God
78 St Marys Church
79 Fryes Elementarty School
80 San Marcos Elementary School
81 Chandler High School
82 Austin Field
83 Arizona College Prep -Oakland Campus
84 Galveston Elementary School
85 St Mary - Basha Catholic School

NOTE: The information provided on this page represents all active Liquor Licenses which may include businesses in transition to a new owner/use. Therefore, the prior business name may still be listed since the license has not been final closed.

'21 JAN 5 Liq. Lic. AM 8:48



Total sq ft 1,500 (AP)

ITEM 18

CHANDLER arizona
Community of Innovation

City Council Memorandum **Management Services** **Memo No.** 21-044

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director
From: Danielle Wells, Revenue and Tax Manager
Subject: New License Series 4, In State Wholesalers Liquor License application for Surekha Soorma, Agent, Nuwave Beverage LLC, dba Nuwave Beverage

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Proposed Motion:

Move for recommendation to the State Department of Liquor Licenses and Control for approval of the State Liquor Job No. 129847, a Series 4, In State Wholesalers Liquor License, for Surekha Soorma, Agent, Nuwave Beverage LLC, dba Nuwave Beverage, located at 3225 N. Arizona Avenue, Suite 10, and approval of the City of Chandler, Series 4, In State Wholesalers Liquor License No. 300441 L04.

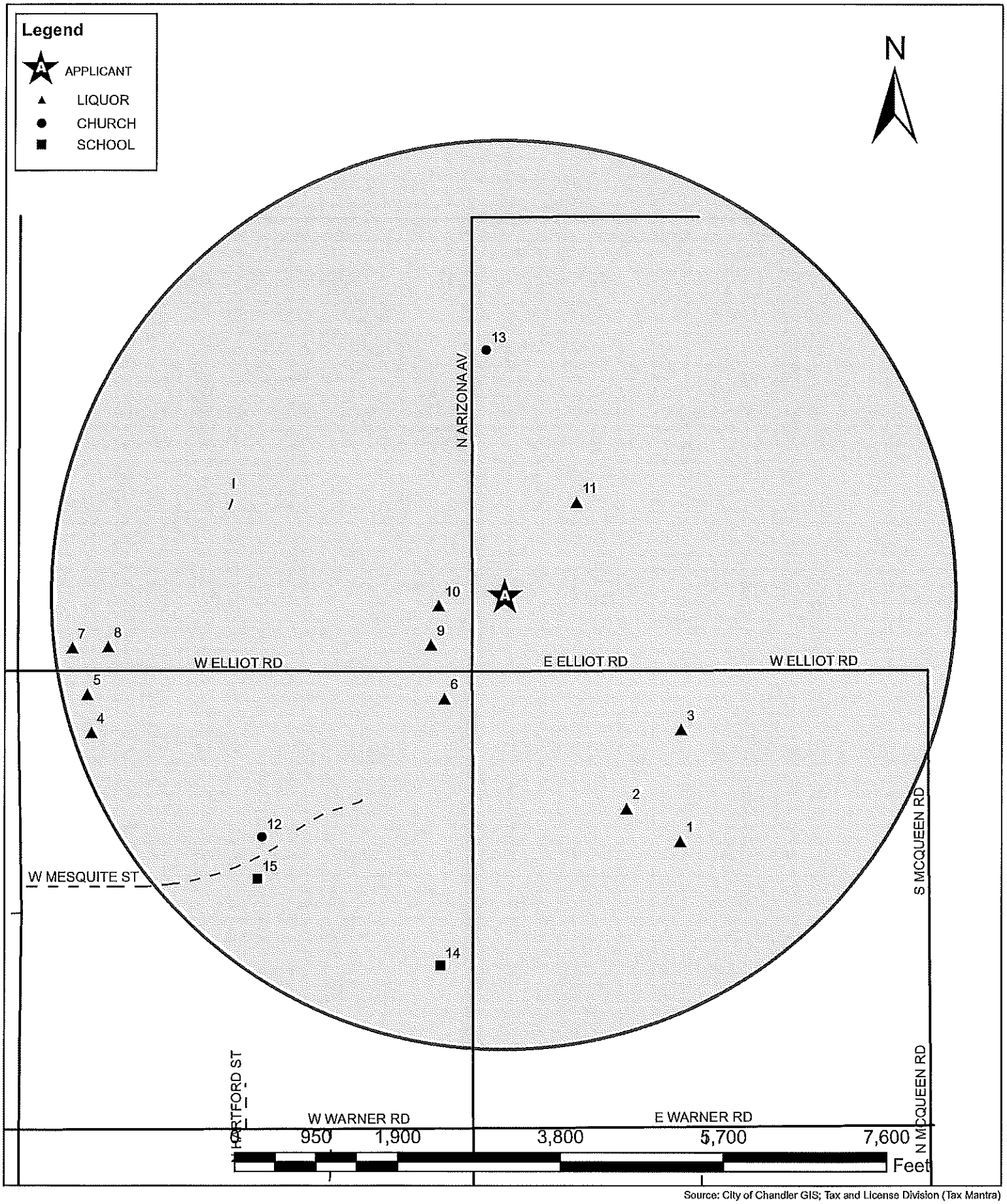
Discussion:

This application for a liquor license was posted for hearing on February 25, 2021.

The Police Department reports no objections to the issuance of this license, and no written protests pursuant to A.R.S. 4-201(B) have been received. With a Series 4, In State Wholesalers Liquor License, the business may sell at wholesale to licensed retailers only.

Attachments

A-Map
B-Floor Plan



Source: City of Chandler GIS; Tax and License Division (Tax Mantra)

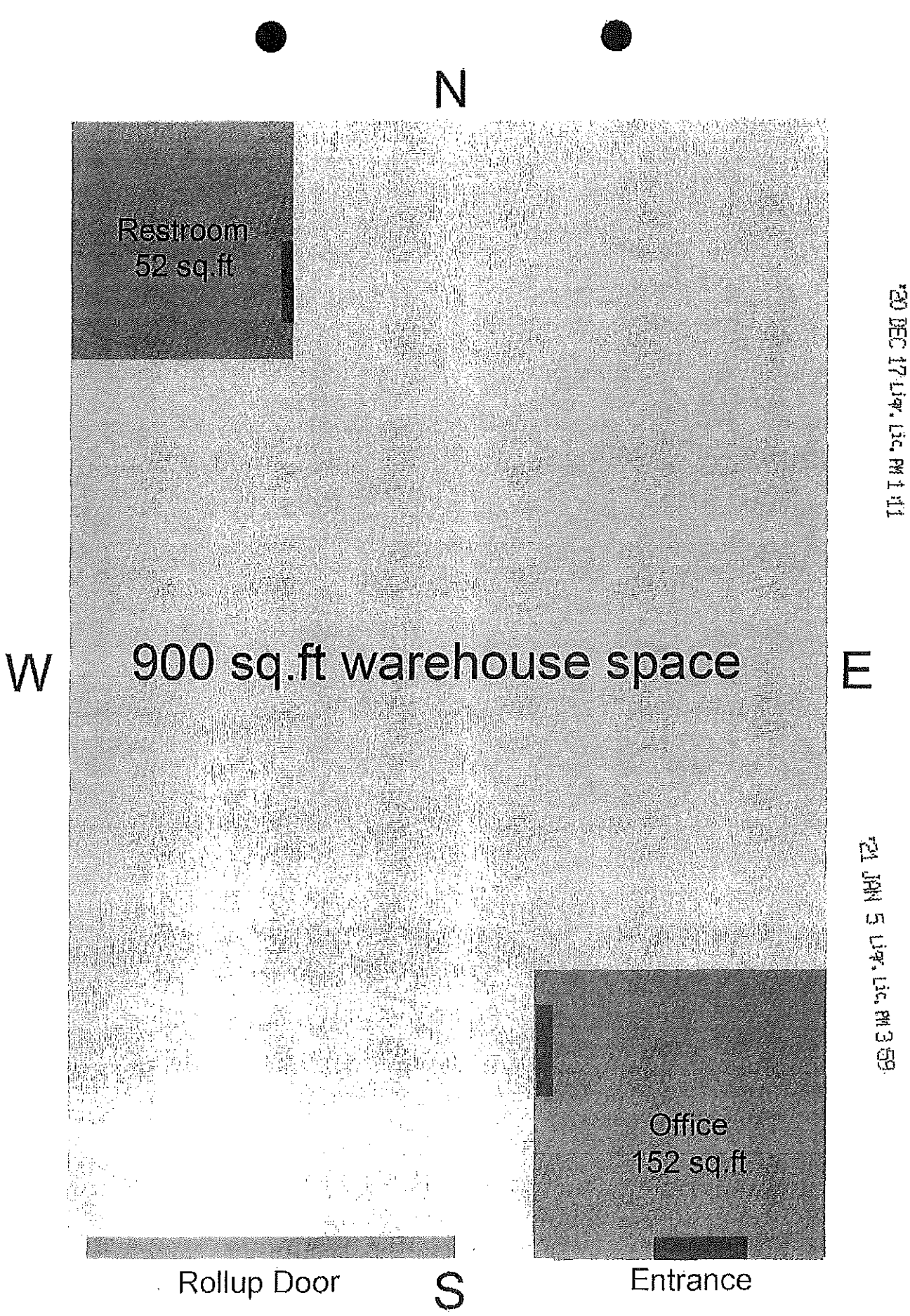
Liquor License Map - 3225 N. Arizona Avenue Suite C10

This map shows the locations of all churches, schools and spirituous liquor outlets within a one (1) mile radius of the proposed location.

Please refer to attached list for additonal information

A Nuwave Beverage LLC
1 Hensley Beverage Company
2 Quench Fine Wines
3 Az Spirits Distribution LLC
4 Mayflower Chinese Restaurant
5 Masa Sushi
6 Circle K Store 3445
7 Priceless Too Inc
8 101 Liquor Square LLC
9 Rosas Mexican Grill
10 Pacific Seafood
11 Desert Cider House
12 Lds Church
13 Arizona Av Baptist Church
14 Providence High School
15 Sirrine Elementary School

NOTE: The information provided on this page represents all active Liquor Licenses which may include businesses in transition to a new owner/use. Therefore, the prior business name may still be listed since the license has not been final closed.



'20 DEC 17 Liq. Lic. AM 1 41

'21 JAN 5 Liq. Lic. AM 3 59

CHANDLER arizona
Community of Innovation

City Council Memorandum **Neighborhood Resources** **Memo No.** NR21-001

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Debra Stapleton, Assistant City Manager
Leah Powell, Neighborhood Resources Director

From: Riann Balch, Community Resources Manager

Subject: Resolution No. 5441 Approving and Authorizing an Amendment to the Intergovernmental Agreement (IGA) Between Maricopa County Administered by its Human Services Department and City of Chandler for the Purpose of Providing Temporary Housing for At Risk Individuals and Families Due to the COVID-19 Pandemic Utilizing Hotel Rooms in an Amount of $79,580 for a New Total Expenditure of $238,740; Extending the Term of the Agreement Through March 31, 2021; and Authorizing the City Manager or Designee to Sign the Amendment and all Related Documents on Behalf of the City of Chandler.

Proposed Motion:

Move City Council pass and adopt Resolution No. 5441 approving and authorizing Amendment No. 3 to an Intergovernmental Agreement (IGA) between Maricopa County Administered by its Human Services Department and City of Chandler for the purpose of providing temporary housing for at-risk individuals and families due to the COVID-19 pandemic utilizing hotel rooms in an amount of $79,580 for a new total expenditure of $238,740; extending the term of the agreement through March 31, 2021; and authorizing the City Manager or designee to sign the agreement and all related documents on behalf of the City of Chandler.

Background:

On March 11, 2020, the Governor of the State of Arizona, Douglas A. Ducey, declared a State of Emergency in Arizona due to the novel Coronavirus and determined that the COVID-19 outbreak presents conditions that are, or are likely to be, beyond the control of services, personnel, equipment, and facilities of any single county, city, or town, and which requires the combined efforts of the State of Arizona and its political subdivisions.

On March 19, 2020, Chandler Mayor Kevin Hartke issued a proclamation declaring the existence of an emergency as a result of the COVID-19 outbreak, placing the City of Chandler, County of Maricopa, and State of Arizona, in a condition of extreme peril to life and property. Pursuant to the emergency powers vested in the Mayor under Arizona Revised Statutes §26-311 and Chandler City Code §6-3.2, Mayor Hartke determined that extraordinary measures must be taken to alleviate the suffering of people and to protect or rehabilitate property.

Discussion:

In April 2020, the Maricopa County Human Services Department approached the cities of Mesa, Tempe and Chandler with a proposal to work cooperatively to assist persons experiencing homelessness by providing temporary housing to prevent exposure to the COVID-19 virus. Maricopa County agreed to enter into a lease agreement with a hotel and provide 24/7 on site security, while the partnering cities would provide the clientele and wrap-around services to support them during their stay and assist them in their transition to permanent housing.

On July 13, 2020, the City of Chandler entered into this agreement for the period of April 26, 2020 through July 26, 2020. The service was successful, providing safe accommodations for Chandler residents experiencing homelessness to shelter in place. Regrettably, the hotel property changed ownership in July 2020 and the new owner chose not to renew the lease agreement with Maricopa County.

On August 13, Amendment No. 1 was approved to extend the agreement to September 30, 2020, and add funding in an amount not to exceed $79,580 for 10 hotel rooms and security services. The City of Chandler secured hotel space and security services and continued to place and provide wrap-around support to program participants with the ultimate goal of transitioning them to permanency.

On October 15, Amendment Number 2 was approved adding $79,580 for a new not-to-exceed amount of $159,160 and extending the term of the agreement through December 31, 2020.

Amendment Number 3 continues the support of 10 hotel rooms and security services through the addition of $79,580 for a new not-to-exceed amount of $238,740 and extends the term of the agreement through March 31, 2021.

The City of Chandler also utilizes Community Development Block Grant-Coronavirus (CDBG-CV) and AZ CARES funds to support this program. Through January 31, 2021, 104 Chandler residents have been served through the program. Of these, 43 have successfully transitioned to permanent housing and 14 have entered emergency shelter or inpatient care where they will receive ongoing services to improve their housing stability and end their homelessness. As of January 31, 2021, 39 residents are actively participating in the program.

Financial Implications:

The City of Chandler provides client services through City staff and an existing contract with Community Bridges, Inc. which is funded from the Grant Fund, Community Development Cost Center, Food Meals and Lodging Account, and Maricopa County Cares Act
Program (217.4700.5514.0.3NR001) for $79,580.

Attachments

Resolution No. 5441

Amendment No. 3

RESOLUTION NO. 5441

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, APPROVING AND AUTHORIZING AMENDMENT NUMBER 3 TO THE INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF CHANDLER AND MARICOPA COUNTY TO PROVIDE TEMPORARY HOUSING FOR AT RISK INDIVIDUALS AND FAMILIES DUE TO THE COVID-19 PANDEMIC UTILIZING HOTEL ROOMS IN AN AMOUNT OF $79,580 FOR A NEW TOTAL EXPENDITURE OF $238,740; EXTENDING THE TERM OF THE AGREEMENT THROUGH MARCH 31, 2021; AND AUTHORIZING THE CITY MANAGER OR DESIGNEE TO SIGN THE AMENDMENT AND ALL RELATED DOCUMENTS ON BEHALF OF THE CITY OF CHANDLER.

WHEREAS, on March 11, 2020, the Governor of the State of Arizona, Douglas A. Ducey, declared that a State of Emergency exists in Arizona due to the COVID-19 outbreak and determined that the COVID-19 outbreak presents conditions that are, or are likely to be, beyond the control of services, personnel, equipment, and facilities of any single county, city, or town, and which requires the combined efforts of the State of Arizona and its political subdivisions; and

WHEREAS, on March 19, 2020, the Mayor of the City of Chandler, Kevin Hartke, by proclamation declared a State of Local Emergency for the City of Chandler to protect the health, safety, and welfare of the City and its residents and further declared that COVID-19 outbreak constitutes a condition of extreme peril to life and property within the City of Chandler; and

WHEREAS, Arizona Revised Statutes, Section 11-951, *et. seq*., provides that public agencies may enter into intergovernmental agreements for the provision of services, or for joint or cooperative action; and

WHEREAS, the City of Chandler and Maricopa County seek to amend an Intergovernmental Agreement to provide temporary housing for at risk individuals and families due to the COVID-19 pandemic; and

WHEREAS, the City of Chandler and Maricopa County seek a third amendment to an Intergovernmental Agreement to continue to provide temporary housing for at risk individuals and families due to the COVID-19 pandemic.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Chandler as follows:

Section 1. Approves Amendment Number 3 to the Intergovernmental Agreement between the City of Chandler and Maricopa County for the purpose providing temporary housing for at risk individuals and families due to the COVID-19 pandemic utilizing hotel rooms, which extends the term of the Agreement through March 31, 2021, and accepts an additional $79,580 in funding for a new not-to-exceed amount of $238,740.

Section 2. Authorizes and directs the City Manager, or designee, to execute this Amendment Number 3, in the form attached hereto and incorporated for reference, and such other actions as are necessary to carry out the intent of this Resolution.

PASSED AND ADOPTED by the Mayor and Council of the City of Chandler, Arizona, this ____ day of February, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5441 was duly passed and adopted by the City Council of Chandler, Arizona, at a regular meeting held on the _____ day of February, 2021, and that a quorum was present thereat.

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

AMENDMENT NO. 3
TO THE
INTERGOVERNMENTAL AGREEMENT
BETWEEN
MARICOPA COUNTY
ADMINISTERED BY ITS
HUMAN SERVICES DEPARTMENT
AND
CITY OF CHANDLER

I. Maricopa County ("County") administered by its Human Services Department, entered into a non-financial Intergovernmental Agreement ("Agreement") with the City of Chandler ("City"), which was fully executed on or about July 13, 2020. The County and the City collectively are referred to here as the "Parties."

The purpose of the Agreement is for the Parties to work cooperatively to assist individuals experiencing homelessness. The original term of the Agreement was from April 27, 2020, through July 26, 2020.

The Parties fully executed Amendment No. 1 on or about September 2, 2020. Amendment No. 1 revised the Agreement from non-financial to financial in nature and added that the County shall provide the City with a not-to-exceed amount of $79,580 to procure hotel space as temporary housing to prevent exposure to the COVID-19 health pandemic for individuals experiencing homelessness and be responsible for the procurement and management of security services. Amendment No. 1 extended the term of the Agreement from July 26, 2020, through September 30, 2020 (i.e., two, one-month terms).

The Parties fully executed Amendment No. 2 on or about October 27, 2020. Amendment No. 2 extended the term of the Agreement from September 30, 2020 through December 30, 2020, (i.e., three, one-month terms). And the County provided additional funding in the amount of $79,580 under the Catalog of Federal Domestic Assistance (CFDA) 21.019 Coronavirus Aid, Relief, and Economic Security Act (CARES Act), Public Law 116-136.

II. The Parties now agree to amend the Agreement by this Amendment No. 3 as follows:

A. Revise Section 3.1 to read as follows:

3.1 This Agreement may be extended for eight additional one-month terms. Extensions must be in writing and approved and signed by both Parties. Written notice of intent to extend this Agreement shall be sent to the City fifteen calendar days prior to the end of the original or extended Agreement term, as applicable.

B. Extend the term of the Agreement for three additional one-month terms: from December 31, 2020, through January 31, 2021; from February 1, 2021, through February 28, 2021; and from March 1, 2021, through March 31, 2021.

C. Add that the County shall provide the City with an additional $ 79,580 in funding in return for the services provided under this Agreement. The total available funding now increased from $159,160 to a not-to-exceed amount of $238,740. The funding for this Amendment No. 3 is provided by Catalog of Federal Domestic Assistance (CFDA) 21.019 Coronavirus Aid, Relief, and Economic Security Act (CARES Act),

Public Law 116-136.

D. The City shall submit monthly invoices no later than the 10th calendar day of each month.

E. The City shall submit a final invoice for expenditures under Amendment No. 3 not later than April 15, 2021.

F. The City shall submit invoices and supporting documents to: HSDFinance@Maricopa.gov

III. The Agreement is amended to incorporate the changes contained in this Amendment No. 3. All other terms and conditions of the Agreement, Amendment No. 1, and Amendment No. 2 shall remain unchanged and in full force and effect as executed by the Parties.

IV. The Parties have authorized the undersigned to execute this Amendment No. 3, and it shall be effective upon approval and signature by both Parties.

IN WITNESS, the Parties have approved and signed this Amendment No.3:

FOR CITY OF CHANDLER:

Marsha Reed, City Manager Date

Attested to:

Clerk of the City Date

IN ACCORDANCE WITH A.R.S. §§ 9-240 AND 11-952, THIS AMENDMENT NO. 3 HAS BEEN REVIEWED BY THE UNDERSIGNED ATTORNEY WHO HAS DETERMINED IT IS PROPER IN FORM AND WITHIN THE POWERS AND AUTHORITY GRANTED TO THE CITY OF CHANDLER UNDER THE LAWS OF THE STATE OF ARIZONA.

APPROVED AS TO FORM:

Attorney for the City Date

FOR MARICOPA COUNTY:

Jack Sellers, Chairman, Board of Supervisors

Attested to:

Juanita Garza, Clerk of the Board Date

IN ACCORDANCE WITH A.R.S. §§ 11-201, 11-251, AND 11-952, THIS AMENDMENT NO. 3 HAS BEEN REVIEWED BY THE UNDERSIGNED ATTORNEY WHO HAS DETERMINED IT IS PROPER IN FORM AND WITHIN THE POWERS AND AUTHORITY GRANTED TO MARICOPA COUNTY UNDER THE LAWS OF THE STATE OF ARIZONA.

APPROVED AS TO FORM:

Deputy County Attorney Date

CHANDLER arizona
Community of Innovation

City Council Memorandum **Neighborhood Resources** **Memo No.** NR21-002

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Debra Stapleton, Assistant City Manager
Leah Powell, Neighborhood Resources Director

From: Riann Balch, Community Resources Manager

Subject: Resolution No. 5442 Approving and Authorizing the Reallocation of $3,000,000 of AZCares Grant Funds for Future Distribution; and Approving and Authorizing Reallocation to AZCares Grant Funds in the Amount of $1,115,000 to Chandler AZCEND, the Salvation Army Chandler Corp, Save the Family, and the Neighborhood Resources Department for Services to Assist Chandler Households Negatively Impacted by the Coronavirus Pandemic.

Proposed Motion:

Move City Council pass and adopt Resolution No. 5442 Authorizing the Reallocation of $3,000,000 of AZCares Grant Funds for future distribution; and authorizing reallocation to AZCares grant funds in the amount of $1,115,000 to Chandler AZCEND, the Salvation Army Chandler Corps, Save the Family, and the Neighborhood Resources Department for services to assist Chandler households negatively impacted by the Coronavirus Pandemic.

Background:

On December 10, 2020, City Council approved Resolution No. 5430 authorizing the allocation of $4,115,000 of AZCARES funds to assist Chandler Households in need as a result of COVID-19. Specifically, the resolution authorized the allocation of $3,815,000 to AZCEND for rent and utility assistance, $200,000 to the Salvation Army Chandler Corps for rent and utility assistance, and $100,000 to the Neighborhood Resources Department for hotel stays for persons experiencing homelessness. At this time, existing funds for these services were on target for full expenditure by December 31, 2020, and community need for these services remained high.

In late December, Maricopa County notified AZCEND, the Community Action Program (CAP) serving Chandler residents, that it would make additional funds available to continue assistance through January and February, or until funds ran out. In early January, the City received notice from the US Department of the Treasury that it was eligible to apply for the new Emergency Rental Assistance Program (ERAP) and that funds would be available soon thereafter. The Neighborhood Resources Department applied for the funds on behalf of the City and received an award of $7,946,091.60.

Discussion:

The new ERAP funds have very specific eligibility requirements. The program may assist renters with incomes up to 80% area median income (AMI) who meet specific criteria including receipt of unemployment benefits or can document a loss of income resulting from COVID-19, and can demonstrate a risk of homelessness or housing instability. Households at or below 50% AMI must be prioritized. Neither mortgage assistance nor move-in assistance is eligible through ERAP. Some Chandler households will have an urgent need, but be unable to meet the required criteria or provide the required documentation. In addition, there is an increasing need for move-in assistance to rehouse households that have become homeless as a result of the pandemic. To successfully combat housing instability and homelessness, it is critical to have alternative sources of funding available to assist Chandler households in need.

As a result of this new resource, staff recommends the reallocation of $3,000,000 of AZCares grant funds be returned to the AZCares Grant Fund, Financial Reserve for future distribution. In addition, staff recommends reallocating the remaining $1,115,000 of the $4,115,000 AZCares funds allocated on December 10, 2020, to AZCEND, the Salvation Army Chandler Corp, Save the Family, and the Neighborhood Resources Department to serve Chandler households in need as follows:

Staff recommends allocating $200,000 of AZCares grant funds to AZCEND for rent, utility, mortgage and move-in assistance. These funds will complement the ERAP funds recommended for allocation to AZCEND in Resolution No. 5443.

In addition, staff recommends allocating $450,000 of AZCares grant funds to the Salvation Army Chandler Corps for rent, utility, mortgage and move-in assistance, as well as a second year of weather-related respite services previously supported for one year through AZCares grant funds. These funds will allow the Salvation Army to continue to the level of service they are currently providing through their first allocation of AZCares grant funds.

Staff also recommends allocating $340,000 AZCares funds to Save the Family to support Rapid Rehousing for Chandler families with children for a second year. This program quickly re-houses Chandler families that become homeless as a result of COVID-19 and supports them as they regain stability and move back to independence. This program was previously funded for one year with AZCares funds. This service continues to be in high demand as the pandemic continues and emergency shelter continues to operate at a decreased capacity across the Valley.

Finally, staff recommends allocating $125,000 AZCares grant funds to the Neighborhood Resources Department for hotel stays and client services for people experiencing homelessness.

Financial Implications:

AZCares of $3,000,000 would be transferred back to the Grant Fund, Non-Departmental Cost Center, AZCares Financial Reserve Account (217.1290.5926.0.3AZ000), from the Grant Fund, Community Development Cost Center, Professional Services Account, Community Support Program (217.4700.5219.0.3AZ001), for future distribution by Council.

Attachments

Resolution No. 5442

RESOLUTION NO. 5442

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AUTHORIZING THE REALLOCATION OF $3,000,000 OF AZCARES GRANT FUNDS FOR FUTURE DISTRIBUTION; AND AUTHORIZING REALLOCATION OF AZCARES GRANT FUNDS IN THE AMOUNT OF $1,115,000 TO CHANDLER AZCEND, THE SALVATION ARMY CHANDLER CORP, SAVE THE FAMILY, AND THE NEIGHBORHOOD RESOURCES DEPARTMENT FOR SERVICES TO ASSIST CHANDLER HOUSEHOLDS NEGATIVELY IMPACTED BY THE CORONAVIRUS PANDEMIC

WHEREAS, the City of Chandler, non-profit partners, faith based organizations, community leaders, and caring Chandler residents, provide a network of human services, education and assistance to Chandler's most vulnerable residents; and

WHEREAS, non-profit organizations serving the Chandler community have an increased need to serve persons experiencing housing instability and homelessness in association with COVID-19, and some individuals are not eligible for Federal funds; and

WHEREAS, the City of Chandler received AZCares grant funds and on December 10, 2020, in Resolution No. 5430, the City Council allocated $4,115,000 AZCares funds to AZCEND, the Salvation Army Chandler Corp, and the Neighborhood Resources Department to assist Chandler households in need; and

WHEREAS, in mid-January, 2021, the City of Chandler received $7,946,091.60 from the US Department of Treasury for emergency rent and utility assistance for eligible Chandler households in need; and

WHEREAS, the City of Chandler Neighborhood Resources Department recommends returning $3,000,000 to the AZCares fund for future distribution; and

WHEREAS, the City of Chandler Neighborhood Resources Department recommends reallocating the remaining $1,115,000 of the $4,115,000 AZCares funds allocated on December 10, 2020 to AZCEND, the Salvation Army Chandler Corp, Save the Family, and the Neighborhood Resources Department to serve Chandler households in need.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. Accepts the reallocation of $3,000,000 of AZCares grant funds for future distribution.

Section 2. Authorizes AZCares grant funds in the amount of $200,000 be reallocated to AZCEND for rent, utility, mortgage and move-in assistance.

Section 3. Authorizes AZCares grant funds in the amount of $450,000 be reallocated to The Salvation Army Chandler Corps for rent, utility, mortgage, move-in assistance, and weather related respite services.

Section 4. Authorizes AZCares grant funds in the amount of $340,000 be reallocated to Save the Family to for Rapid Rehousing for Chandler families experiencing homelessness, for a second year.

Section 5. Authorizes AZCares grant funds in the amount of $125,000 be reallocated to the Neighborhood Resources Department for client services for people experiencing homelessness.

Section 6. Authorizes the City Manager, or her designee, to enter into agreements to carry out the intent of this Resolution.

PASSED AND ADOPTED by the City Council of the City of Chandler, Arizona, this ____ day of February, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5442 was duly passed and adopted by the City Council of Chandler, Arizona, at a regular meeting held on the _____ day of February, 2021 and that a quorum was present thereat.

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

CHANDLER arizona
Community of Innovation

City Council Memorandum **Neighborhood Resources** **Memo No.** NR21-003

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Debra Stapleton, Assistant City Manager
Leah Powell, Neighborhood Resources Director

From: Riann Balch, Community Resources Manager

Subject: Resolution No. 5443 Approving and Authorizing an Agreement Between the US Department of the Treasury and the City of Chandler in the Amount of $7,946,091.60 for the Emergency Rental Assistance Program; and Authorizing an Agreement with AZCEND to Administer and Distribute Funds in the Amount of $7,671,091.60 to Assist Chandler Households in Need Due to COVID-19; and Authorizing the Neighborhood Resources Department to Utilize $275,000 to Administer the Emergency Rental Assistance Program and Continue the Chandler Cares Team for a Second Year; and Authorizing the City Manager or Designee to Sign Agreements and All Related Documents on Behalf of the City of Chandler.

Proposed Motion:

Move City Council pass and adopt Resolution No. 5443 approving and authorizing an agreement between the US Department of the Treasury and the City of Chandler in the Amount of $7,946,091.60 for the Emergency Rental Assistance Program and approve a General Fund, Contingency Transfer to the Grant Fund, Neighborhood Resources Department, Community Development Cost Center; thereby authorizing an agreement with AZCEND to administer and distribute funds in the amount of $7,671,091.60 to assist Chandler households in need due to COVID-19; and authorizing the Neighborhood Resources Department to utilize $275,000 to administer the Emergency Rental Assistance Program and Continue the Chandler Cares Team for a Second Year; and authorizing the City Manager or designee to sign agreements and all related documents on behalf of the City of Chandler.

Background:

On March 11, 2020, the Governor of the State of Arizona, Douglas A. Ducey, declared that a State of Emergency exists in Arizona due to the COVID-19 outbreak and determined that the COVID-19 outbreak presents conditions that are, or are likely to be, beyond the control of services, personnel, equipment, and facilities of any single county, city, or town, and which requires the combined efforts of the State of Arizona and its political subdivisions.

On March 19, 2020, the Mayor of the City of Chandler Kevin Hartke, by proclamation declared a State of Local Emergency for the City to protect the health, safety, and welfare of the City and its residents and further declared that COVID-19 outbreak constitutes a condition of extreme peril to life and property within the City. Many Chandler households continue to demonstrate an urgent need for rental and utility assistance due to the financial impacts of COVID-19, including loss of employment.

The United States Department of the Treasury, (Treasury) included appropriations for an Emergency

Rental Assistance Program, (ERAP) created under Section 501 of Division N of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (Dec. 27, 2020) (Section 501), for eligible local governmental entities. The Neighborhood Resources Department applied on behalf of the City to obtain Section 501 federal funds in connection with the City's responsibility for the public health, safety, and welfare of its citizenry and its determination that a compelling public purpose exists for the expenditure of federal funds for rental and utility assistance to ensure a safer and more stable environment during the COVID-19 emergency.

Discussion:

As a result, the Treasury has released payment of $7,946,091.60 in ERAP funds to the City. The non-profit organization AZCEND, serves as the City's Community Action Program (CAP) and works in partnership with the City to administer federal and local funds allocated for this purpose. AZCEND is uniquely qualified to administer and distribute these funds in compliance with Federal regulations, reporting requirements and expenditure deadlines.

The City and AZCEND desire to enter into a contract in the amount of $7,671,091.60 so that AZCEND may assist the City in administering and distributing ERAP funds. The City will utilize $275,000 of the ten percent administrative allowance to administer the grant and fund the Chandler CARES Team, which assists Chandler residents and landlords in navigating the application process for a second year.

Financial Implications:

An allocation of $7,671,092 would be transferred from the General Fund, Non-Departmental Cost Center, Contingency Account (101.1290.5911), to the Grant Fund, Community Development Cost Center, Professional Services Account, Emergency Rental Assistance Program (217.4700.5219.0.3NR002). The Neighborhood Resources Department will distribute $7,671,091.60 to Chandler AZCEND to administer and distribute the funds, $275,000 will be used by the City to administer and fund the Chandler Cares Team. There are no match requirements for ERAP funds.

Attachments

Resolution No. 5443

Treasury ERAP Agreement

RESOLUTION NO. 5443

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA, AUTHORIZING AN AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF THE TREASURY AND THE CITY OF CHANDLER IN THE AMOUNT OF $7,946,091.60 FOR THE EMERGENCY RENTAL ASSISTANCE PROGRAM; AND AUTHORIZING AN AGREEMENT BETWEEN THE CITY OF CHANDLER AND AZCEND TO ADMINISTER AND DISTRIBUTE FUNDS IN THE AMOUNT OF $7,671,091.60 TO ASSIST CHANDLER HOUSEHOLDS IN NEED DUE TO COVID-19; AND AUTHORIZING THE NEIGHBORHOOD RESOURCES DEPARTMENT TO UTILIZE $275,000 TO ADMINISTER THE EMERGENCY RENTAL ASSISTANCE PROGRAM AND CONTINUE THE CHANDLER CARES TEAM FOR A SECOND YEAR; AND AUTHORIZING THE CITY MANAGER OR DESIGNEE TO SIGN AGREEMENTS AND ALL RELATED DOCUMENTS ON BEHALF OF THE CITY OF CHANDLER.

WHEREAS, on March 11, 2020, the Governor of the State of Arizona, Douglas A. Ducey, declared that a State of Emergency exists in Arizona due to the COVID-19 outbreak and determined that the COVID-19 outbreak presents conditions that are, or are likely to be, beyond the control of services, personnel, equipment, and facilities of any single county, city, or town, and which requires the combined efforts of the State of Arizona and its political subdivisions; and

WHEREAS, on March 19, 2020, the Mayor of the City of Chandler (hereinafter "City") Kevin Hartke, by proclamation declared a State of Local Emergency for the City to protect the health, safety, and welfare of the City and its residents and further declared that COVID-19 outbreak constitutes a condition of extreme peril to life and property within the City; and

WHEREAS, many Chandler households have urgent need for rental and utility assistance due to the financial impacts of COVID-19, including loss of employment; and

WHEREAS, the United States Department of the Treasury, (hereinafter "Treasury") included appropriations for an Emergency Rental Assistance Program, (hereinafter "ERAP") created under Section 501 of Division N of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (Dec. 27, 2020) (referred to herein as "Section 501"), for eligible local governmental entities; and

WHEREAS, an application was filed on behalf of the City, by and through the Neighborhood Resources Department, with the Treasury to obtain Section 501 federal funds in connection with the City's responsibility for the public health, safety, and welfare of its citizenry and its determination that a compelling public purpose exists for the expenditure of federal funds for rental and utility assistance to ensure a safer and more stable environment during the COVID-19 emergency; and

WHEREAS, pursuant to such application, the Treasury has released payment of $7,946,091.60 in ERAP funds to the City (the "Award"); and

WHEREAS, the non-profit organization AZCEND serves as the City's Community Action Program (CAP) and works in partnership with the City to administer federal and local funds allocated for this purpose and can effectively meet Treasury requirements; and

WHEREAS, the City and AZCEND desire to enter into a contract in the amount of $7,671,091.60 so that AZCEND may assist the City in administering and distributing its Award of ERAP funds in an amount up to $7,671,091.60; and

WHEREAS, the City will utilize $275,000 of the ten percent administrative allowance to administer the ERAP grant and fund the Chandler CARES Team for a second year.

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Chandler as follows:

Section 1. Approves the Agreement between the City and the Treasury, in the form presented in Exhibit A.

Section 2. Authorizes a contract with AZCEND, the CAP serving the City, in the amount of $7,671,091.60, to administer and distribute ERAP funds to assist Chandler households in urgent need of rental and utility assistance as a result of COVID-19.

Section 3. Authorizes the Neighborhood Resources Department to utilize $275,000 in order to administer the ERAP and continue the Chandler CARES Team for a second year.

Section 4. Authorizes and directs the City Manager, or her designee, to execute, on behalf of the City, the named Agreements and such other actions as are necessary to carry out the intent of this Resolution.

PASSED AND ADOPTED by the Mayor and Council of the City of Chandler, Arizona, this ____ day of February, 2021.

ATTEST:

_____ _____

CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5443 was duly passed and adopted by the City Council of Chandler, Arizona, at a regular meeting held on the _____ day of February, 2021, and that a quorum was present thereat.

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

OMB Approved No.: 1505-0266

Expiration Date: 7/31/21

U.S. DEPARTMENT OF THE TREASURY
EMERGENCY RENTAL ASSISTANCE

Recipient name and address: City of Chandler 235 S Arizona Ave Chandler, AZ 85225-4008	DUNS Number: 07-752-4981 Taxpayer Identification Number: 86-6000238

Section 501(a) of Division N of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (Dec. 27, 2020) authorizes the Department of the Treasury ("Treasury") to make payments to certain recipients to be used to provide emergency rental assistance.

Recipient hereby agrees, as a condition to receiving such payment from Treasury, to the terms attached hereto.

Marsha Reed

Authorized Representative Name:

Title: City Manager

Date signed: 1/8/2021

U.S. DEPARTMENT OF THE TREASURY
EMERGENCY RENTAL ASSISTANCE

1. Use of Funds. Recipient understands and agrees that the funds disbursed under this award may only be used for the purposes set forth in Section 501 of Division N of the Consolidated Appropriations Act, 2021, Pub. L. No. 116-260 (Dec. 27, 2020) (referred to herein as "Section 501").

2. Repayment and reallocation of funds.

    a. Recipient agrees to repay excess funds to Treasury in the amount as may be determined by Treasury pursuant to Section 501(d). Such repayment shall be made in the manner and by the date, which shall be no sooner than September 30, 2021, as may be set by Treasury.

    b. The reallocation of funds provided by Section 501(d) shall be determined by Treasury and shall be subject to the availability of funds at such time.

3. Availability of funds.

    a. Recipient acknowledges that, pursuant to Section 501(e), funds provided under this award shall remain available only through December 31, 2021, unless, in the case of a reallocation made by Treasury pursuant to section 501(d), Recipient requests and receives from Treasury an extension of up to 90 days.

    b. Any such requests for extension shall be provided in the form and shall include such information as Treasury may require.

    c. Amounts not expended by Recipient in accordance with Section 501 shall be repaid to Treasury in the manner specified by Treasury.

4. Administrative costs.

    a. Administrative expenses of Recipient may be treated as direct costs, but Recipient may not cover indirect costs using the funds provided in this award, and Recipient may not apply its negotiated indirect cost rate to this award.

    b. The sum of the amount of the award expended on housing stability services described in Section 501(c)(3) and the amount of the award expended on administrative expenses described in Section 501(c)(5) may not exceed 10 percent of the total award.

5. Reporting.

    a. Recipient agrees to comply with any reporting obligations established by Treasury, including the Treasury Office of Inspector General, as relates to this award, including but not limited to: (i) reporting of information to be used by Treasury to comply with its public reporting obligations under section 501(g) and (ii) any reporting to Treasury and the Pandemic Response Accountability Committee that may be required pursuant to section 15011(b)(2) of Division B of the Coronavirus Aid, Relief, and Economic Security Act (Pub. L. No. 116-136), as amended by Section 801 of Division O of the Consolidated Appropriations Act, 2021 (Pub. L. No. 116-260). Recipient acknowledges that any such information required to be reported pursuant to this section may be publicly disclosed.

    b. Recipient agrees to establish data privacy and security requirements as required by Section 501(g)(4).

6. Maintenance of and Access to Records

a. Recipient shall maintain records and financial documents sufficient to support compliance with Section 501(c) regarding the eligible uses of funds.

b. The Treasury Office of Inspector General and the Government Accountability Office, or their authorized representatives, shall have the right of access to records (electronic and otherwise) of Recipient in order to conduct audits or other investigations.

c. Records shall be maintained by Recipient for a period of five (5) years after all funds have been expended or returned to Treasury.

7. Cost Sharing. Cost sharing or matching funds are not required to be provided by Recipient.

8. Compliance with Applicable Law and Regulations.

a. Recipient agrees to comply with the requirements of Section 501 and Treasury interpretive guidance regarding such requirements. Recipient also agrees to comply with all other applicable federal statutes, regulations, and executive orders, and Recipient shall provide for such compliance in any agreements it enters into with other parties relating to this award.

b. Federal regulations applicable to this award include, without limitation, the following:

i. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, other than such provisions as Treasury may determine are inapplicable to this Award and subject to such exceptions as may be otherwise provided by Treasury. Subpart F – Audit Requirements of the Uniform Guidance, implementing the Single Audit Act, shall apply to this award.

ii. Universal Identifier and System for Award Management (SAM), 2 C.F.R. Part 25 and pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 25 is hereby incorporated by reference.

iii. Reporting Subaward and Executive Compensation Information, 2 C.F.R. Part 170, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 170 is hereby incorporated by reference.

iv. OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement), 2 C.F.R. Part 180 (including the requirement to include a term or condition in all lower tier covered transactions (contracts and subcontracts described in 2 C.F.R. Part 180, subpart B) that the award is subject to 2 C.F.R. Part 180 and Treasury's implementing regulation at 31 C.F.R. Part 19.

v. Recipient Integrity and Performance Matters, pursuant to which the award term set forth in 2 C.F.R. Part 200, Appendix XII to Part 200 is hereby incorporated by reference.

vi. Governmentwide Requirements for Drug-Free Workplace, 31 C.F.R. Part 20.

vii. New Restrictions on Lobbying, 31 C.F.R. Part 21.

c. Statutes and regulations prohibiting discrimination applicable to this award, include, without limitation, the following:

i. Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq.) and Treasury's implementing regulations at 31 C.F.R. Part 22, which prohibit discrimination on the grounds of race, color, or national origin under programs or activities receiving federal financial assistance;

ii. The Fair Housing Act, Title VIII-IX of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), which prohibits discrimination in housing on the basis of race, color, national origin, sex, familial status, or disability;

iii. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of handicap under any program or activity receiving or benefitting from federal assistance;

iv. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.) and Treasury's implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance; and

v. The Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§ 12101 et seq.), which prohibits discrimination on the basis of disability under programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.

9. False Statements. Recipient understands that false statements or claims made in connection with this award may result in fines, imprisonment, debarment from participating in federal awards or contracts, and/or any other remedy available by law.

10. Publications. Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [name of Recipient] by the U.S. Department of the Treasury."

11. Debts Owed the Federal Government.

    a. Any funds paid to Recipient (1) in excess of the amount to which Recipient is finally determined to be authorized to retain under the terms of this award; (2) that are determined by the Treasury Office of Inspector General to have been misused; or (3) that are not repaid by Recipient as may be required by Treasury pursuant to Section 501(d) shall constitute a debt to the federal government.

    b. Any debts determined to be owed the federal government must be paid promptly by Recipient. A debt is delinquent if it has not been paid by the date specified in Treasury's initial written demand for payment, unless other satisfactory arrangements have been made. Interest, penalties, and administrative charges shall be charged on delinquent debts in accordance with 31 U.S.C. § 3717 and 31 C.F.R. § 901.9. Treasury will refer any debt that is more than 180 days delinquent to Treasury's Bureau of the Fiscal Service for debt collection services.

    c. Penalties on any debts shall accrue at a rate of not more than 6 percent per year or such other higher rate as authorized by law. Administrative charges, that is, the costs of processing and handling a delinquent debt, shall be determined by Treasury.

    d. Funds for payment of a debt must not come from other federally sponsored programs.

12. Disclaimer.

    a. The United States expressly disclaims any and all responsibility or liability to Recipient or third persons for the actions of Recipient or third persons resulting in death, bodily injury, property damages, or any other losses resulting in any way from the performance of this award or any other losses resulting in any way from the performance of this award or any contract, or subcontract under this award.

    b. The acceptance of this award by Recipient does not in any way constitute an agency relationship between the United States and Recipient.

13. Protections for Whistleblowers.

    a. In accordance with 41 U.S.C. § 4712, Recipient may not discharge, demote, or otherwise discriminate against an employee as a reprisal for disclosing information to any of the list of persons or entities provided below that the employee reasonably believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contract (including the competition for or negotiation of a contract) or grant.

    b. The list of persons and entities referenced in the paragraph above includes the following:

        i. A member of Congress or a representative of a committee of Congress;

        ii. An Inspector General;

        iii. The Government Accountability Office;

        iv. A Treasury employee responsible for contract or grant oversight or management;

        v. An authorized official of the Department of Justice or other law enforcement agency;

        vi. A court or grand jury; and/or

        vii. A management official or other employee of Recipient, contractor, or subcontractor who has the responsibility to investigate, discover, or address misconduct.

    c. Recipient shall inform its employees in writing of the rights and remedies provided under this section, in the predominant native language of the workforce.

14. Increasing Seat Belt Use in the United States. Pursuant to Executive Order 13043, 62 FR 19217 (April 8, 1997), Recipient should and should encourage its contractors to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented or personally owned vehicles.

15. Reducing Text Messaging While Driving. Pursuant to Executive Order 13513, Recipient should encourage its employees, subrecipients, and contractors to adopt and enforce policies that ban text messaging while driving, and Recipient should establish workplace safety policies to decrease accidents caused by distracted drivers.

CHANDLER arizona
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City Council Memorandum **Public Works & Utilities** **Memo No.** UA21-033

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
From: Tabitha Sauer, Solid Waste Operations Supervisor
Subject: Agreement No. PW8-926-3939, Amendment No. 2, for Processing and Marketing of Recyclable Materials

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Proposed Motion:

Move City Council approve Agreement No. PW8-926-3939, Amendment No. 2, with United Fibers, LLC, for the processing and marketing of recyclable materials, in an amount not to exceed $1,200,000, for a one-year term, March 1, 2021, through February 28, 2022.

Background/Discussion:

On March 1, 2019, the City entered into an agreement with United Fibers, LLC, to process collected recyclable material. More than 20,935 tons of recycled material was collected from Chandler residents' homes in 2020 and delivered to United Fibers, LLC, for processing.

The terms of the original agreement included a processing fee of $67.00 per ton, with the City receiving a 55% revenue share based on the weighted average of the actual sales of marketable recyclables per ton, and a $2.00 per ton education fee paid to the City. The term of this agreement was March 1, 2019, through February 28, 2020, with the option of up to four one-year extensions.

In February 2020, City Council approved Amendment No. 1 to the agreement with United Fibers, LLC, that increased the processing fee to $80.00 per ton, and implemented a new waste disposal fee in the amount of $40.00 per ton for the disposal of contamination, residue, and trash, and eliminated the education fee.

For this extension term, United Fibers, LLC, has requested to increase the processing fee to $85.00 per ton or an estimated annual increase of $160,000. All other terms of the previous agreement remain the same. These terms are consistent with what the vendor has agreed to with its other municipal customers. Staff continues to explore all options to reduce the cost required to process recycling materials generated within the City, as well as develop educational programs and communications regarding accepted recyclable materials and reduce contamination rates.

Evaluation:

On December 13, 2018, City Council approved an agreement with United Fibers, LLC, for the processing and marketing of recyclable materials, for a one-year term, with the option of up to four (4) one-year extensions.

This amendment will increase the processing fee to $85.00 per ton. All other terms and conditions remain the same in the extension term. Staff recommends the extension of the agreement for the period of March 1, 2021, through February 28, 2022. This is the second extension of the original agreement.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
625.3700.5219.0.0	Solid Waste Operating	Other Professional Services	$1,200,000	N

Attachments

Amendment

CHANDLER arizona

City Clerk Document No. _____

City Council Meeting Date: February 25, 2021

AMENDMENT TO CITY OF CHANDLER AGREEMENT
PROCESSING AND MARKETING OF RECYCLABLE MATERIALS
CITY OF CHANDLER AGREEMENT NO. PW8-926-3939

THIS AMENDMENT NO. 2 (Amendment No. 2) is made and entered into by and between the City of Chandler, an Arizona municipal corporation (City), and United Fibers, LLC, (Contractor), (City and Contractor may individually be referred to as Party and collectively referred to as Parties) and made _____, 2021 (Effective Date).

RECITALS

WHEREAS, the Parties entered into an agreement for processing and marketing of recyclable materials (Agreement); and

WHEREAS, the term of the Agreement was March 1, 2019 through February 28, 2020 with the option of up to four one-year extensions; and

WHEREAS, the Parties exercised the first option to extend for the period of March 1, 2020 through February 28, 2021; and

WHEREAS, the Parties wish to exercise the second option through this Amendment to extend the Agreement for one year, March 1, 2021 through February 28, 2022.

AGREEMENT

NOW THEREFORE, the Parties agree as follows:

1. The recitals are accurate and are incorporated and made a part of the Agreement by this reference.

2. Section 4, Price is amended to read as follows: The City will pay the Contractor the per unit cost set forth in Revised Exhibit B of the original Agreement, attached to and made a part of this Amendment No. 2. Total payments made to the Contractor during the term of this Amendment No. 2 will not exceed $1,200,000.

3. Section 5, Term is amended to read as follows: The Agreement is extended for a one-year period March 1, 2021 through February 28, 2022.

4. All other terms and conditions of the Agreement remain unchanged and in full force and effect. If a conflict or ambiguity arises between this Amendment No. 2 and the Agreement, the terms and conditions in this Amendment No. 2 prevail and control.

IN WITNESS WHEREOF, the Parties have entered into this Amendment on the Effective Date.

FOR THE CITY

By: _____

Its: Mayor

FOR THE CONTRACTOR

By: _____

Its: Partner

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
City Clerk

REVISED EXHIBIT B
FEE SCHEDULE

Section 1 – Processing Fee
The Processing Fee is a firm, fixed, all-inclusive fee for processing of City recyclable materials.

$85.00 per ton, paid by the City to the Contractor, with no additional Education Fee.

Section 2 – Revenue Share
Each commodity sold for the month will be divided by the tons for that commodity to determine the weighted average. The percentage of each commodity will be determined by the results of the quality audits performed by the Contractor in conjunction with the City. If freight is not included in the sales price and is paid by the Contractor, the cost may be deducted from the sales price of the commodity to obtain the true net sales price.

The City may review records of actual sales upon request.

55% of the weighted average of actual sales, paid to the City by the Contractor. Revenue share for ONP will be RISI Yellow Sheet Index Mixed Paper (54) Southwest High Side.

Section 3 – Waste Disposal Fee
A Waste Disposal Fee will be assessed for all waste received. The Waste Disposal Fee is a firm, fixed, all-inclusive fee for disposing of waste received from the City.

$40.00 per ton, paid by the City to the Contractor.

CHANDLER arizona
Community of Innovation

City Council Memorandum **Public Works & Utilities** **Memo No.** CP21-073

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
Andrew Goh, Capital Projects Manager

From: Gina Ishida-Raybourn, Utilities Engineering Manager

Subject: Project Agreement No. SW2101.401, with Nesbitt Contracting Co., Inc., Pursuant to Job Order Contract No. JOC1907.401, for the Solid Waste Landfill West Side Stormwater Channel Improvements

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Proposed Motion:

Move City Council award Project Agreement No. SW2101.401, to Nesbitt Contracting Co., Inc., pursuant to Job Order Contract No. JOC1907.401, for the Solid Waste Landfill West Side Stormwater Channel Improvements, in an amount not to exceed $248,712.72.

Background/Discussion:

The Paseo Vista Recreation Area, located at 3850 S. McQueen Road, is a 64-acre former landfill site. In 2005, the landfill was closed, and the site was redeveloped into a recreation area in 2009. One of the maintenance requirements for the closed landfill is to convey stormwater from the site to designated retention basins. One of the stormwater conveyance channels that stretches along the west side of the site has several sections that need repair due to settlement and erosion-caused damage. The general structural integrity of the channel is intact, but sections have either risen or dropped in elevation. These vertical changes have interrupted the designed passive functionality of the channel conveying stormwater that falls on the closed landfill to designated retention basins. City staff has selected the channel sections that have the most severe vertical elevation changes for removal and replacement. With these vertical issues, debris and sediment collect in the channel, and City staff is tasked with clearing the channel to restore the functionality. The channel is situated along the west side of the Paseo Vista Recreation Area, adjacent to the Paseo Trail and Salt River Project Consolidated Canal. The work will be coordinated with the Park Operations Division for any impacts to park amenities or the Paseo Trail.

The project scope of work consists of removal and replacement of approximately 800 linear feet of the concrete channel, including subgrade preparation, compaction, shotcrete installation, and restoration of landscape areas disturbed by the work. The contract completion time is 90 calendar days following Notice to Proceed.

Evaluation:

The selection process was conducted in accordance with City policy and procedure and State law. The costs proposed for this project have been evaluated by staff and determined to be reasonable.

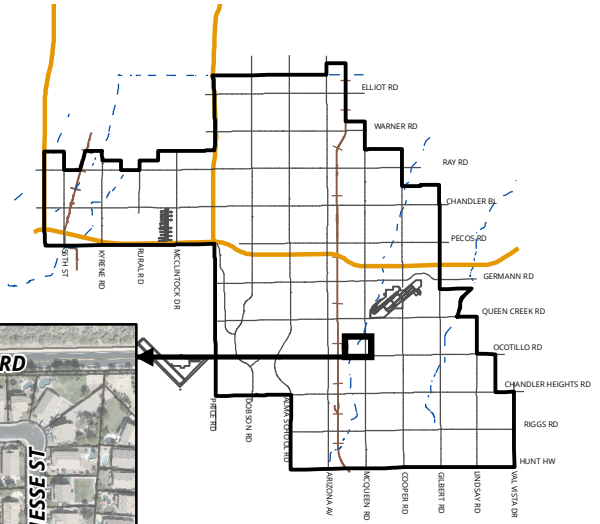
Fiscal Impact

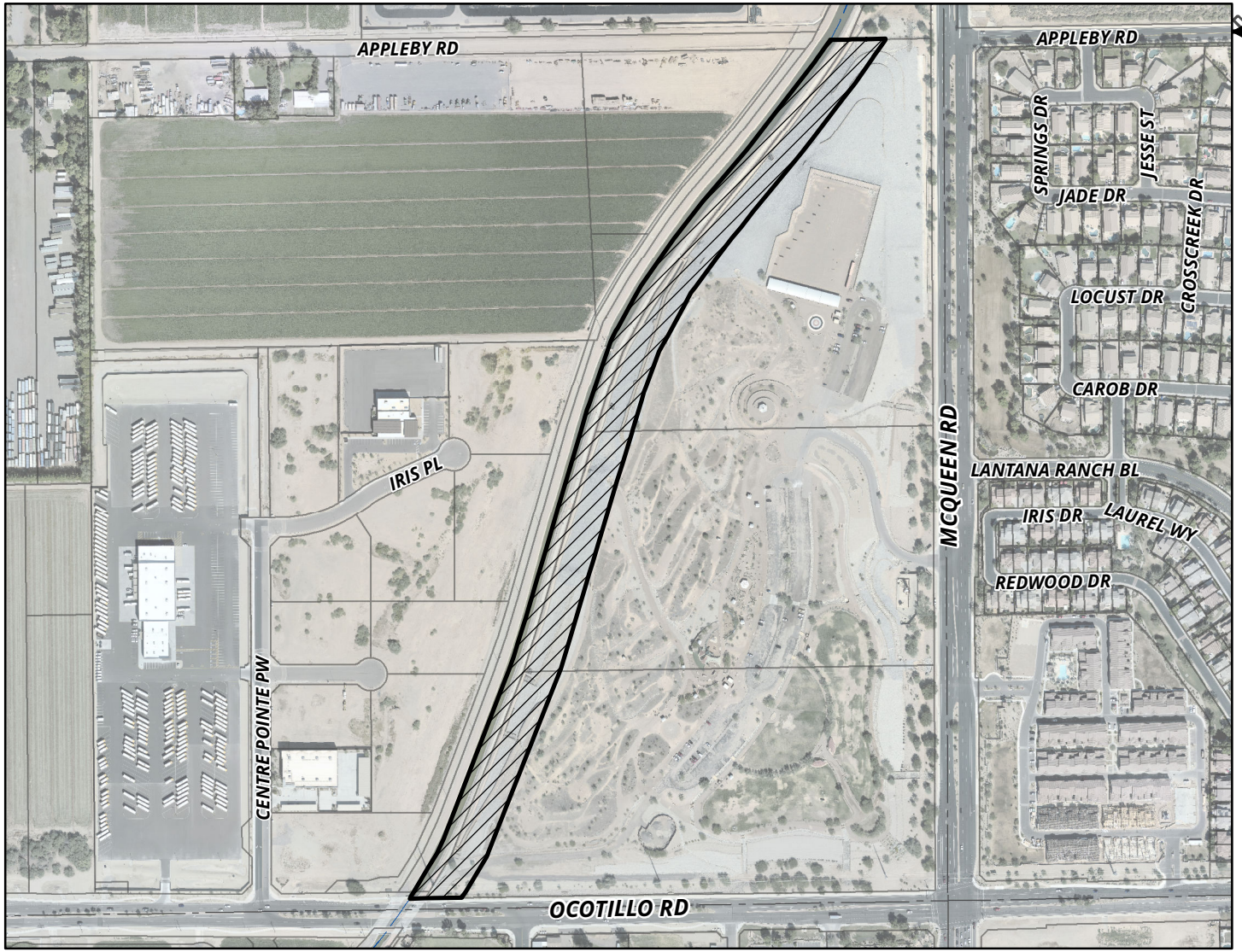
Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
625.3710.6210.6SW497	Solid Waste Operating Fund	Paseo Vista Landfill Post Closure	$248,712.72	Y

Attachments

Location Map
Agreement

SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS PROJECT NO. SW2101.401





MEMO NO. CP21-073

PROJECT SITE

NTS

ChanGIS

F:\ENGINEER\GENSERV_ArcMap_Shared\Map Requests\Capital Projects\CP21-073 SOLID WASTE LANDFILL WEST SIDE STORMWATER\CP21-073.mxd 1/21/2021 MARICELAH

CITY OF CHANDLER
JOB ORDER PROJECT AGREEMENT

Project Name: **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS**

Project No. **SW2101.401**

This JOB ORDER PROJECT AGREEMENT ("Job Order") is made this _____ day of _____ 2021 ("Effective Date"), by and between the City of Chandler, an Arizona municipal corporation, ("City") and **Nesbitt Contracting Co., Inc.**, an Arizona corporation, ("JOC Contractor") and is entered into pursuant to Job Order Master Agreement No. JOC1907.401 ("JOC Master Agreement"). City and JOC Contractor may be referred to individually as "Party" or collectively as "Parties").

City and JOC Contractor, in consideration of the mutual covenants herein set forth, agree as follows:

RECITALS

A. On or about December 11, 2019, the Parties entered into the JOC Master Agreement, which terms and conditions are made a part of and incorporated into this Job Order Project Agreement by this reference.

B. City proposes to engage JOC Contractor to remove and replace stormwater concrete channel sections at the City's closed landfill as more fully described in **Exhibit "A"**, which is attached to and made a part of this Job Order by this reference.

C. JOC Contractor is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.

ARTICLE 1. DESCRIPTION OF WORK

The Parties enter into this Job Order Project Agreement for the **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS**, Project Number **SW2101.401**. The scope of work consists of removal and replacement of stormwater concrete channel sections at the City's closed landfill, all as more particularly set forth in **Exhibit "A"** attached hereto and incorporated herein by reference.

The JOC Contractor will not accept any change of scope, or change in contract provisions, unless issued in writing, as a contract amendment or change order and signed by the authorized signatories for each party.

Performance and Payment Bonds, as set forth in **Exhibit "C"** and **Exhibit "D"** respectively attached hereto and incorporated herein by reference, will be due prior to execution of each Job Order Project Agreement in the full amount of each Job Order.

At project completion, JOC Contractor must complete Contractor's Affidavit Regarding Settlement of Claims and Certificate of Completion, as set forth in **Exhibit "E"** and **Exhibit "F"** respectively attached hereto and incorporated herein by reference.

ARTICLE 2. PROJECT PRICE

City will pay JOC Contractor for completion of the Work in accordance with the JOC Master Agreement a fee not to exceed the Guaranteed Maximum Price of **$248,712.72** Dollars determined and payable as set forth in JOC Master Agreement and **Exhibit "B"** attached hereto and made a part hereof by reference.

ARTICLE 3. CONTRACT TIME & SCHEDULE

JOC Contractor agrees to complete all Construction within **90** calendar days from the Notice to Proceed (NTP) Date.

ARTICLE 4. PARTICIPANTS

CITY:	Project Manager: Paul Young	
	Phone:	480-782-3146
	Email:	Paul.young@chandleraz.gov
JOC CONTRACTOR:	Nesbitt Contracting Co., Inc.	
	100 S. Price Rd. Tempe, AZ 85281	
	JOC Contractor Representative: Joe Chavez	
	Phone:	602-339-5367
	Email:	joechavez@nesbitts.com

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the Parties have executed this Job Order as of the Effective Date.

"CITY"
CITY OF CHANDLER:

MAYOR Date

Recommended By:

Andrew Goh, P.E.
CIP City Engineer

APPROVED AS TO FORM:

City Attorney
By:

ATTEST:

City Clerk SEAL

ADDRESS FOR NOTICE
City of Chandler
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008

"JOC CONTRACTOR"
Nesbitt Contracting Co., Inc.:

Signature 1/22/21
Date

Joe Chavez
Print Name

President
Title

ATTEST: If Corporation

Secretary

ADDRESS FOR NOTICE

Nesbitt Contracting Co., Inc.

100 S. Price Rd.

Tempe, AZ 85281

EXHIBIT A
SCOPE OF WORK

NESBITT CONTRACTING CO., INC.
PHONE (480) 423-7600
FAX (480) 423-7680
EQUAL OPPORTUNITY EMPLOYER
GENERAL ENGINEERING CONTRACTOR
100 S. PRICE ROAD, TEMPE, AZ 85281-3118
LICENSE NO. ROC074063A

Exhibit A
Scope of Work

JOC must perform the following project tasks for Priority One:

- Salvage of mulch and protection of slopes
- Removal of existing shotcrete channel
- Excavation and prep for new channel
- Shotcrete of new channel
- Replacement of mulch
- Decomposed granite and site restoration.
- Traffic Control, Unsuitable subgrade, slope disturbance and as-built survey included as an allowance.
- Need multiuse path closure with 24-hour single lane closure on Ocotillo and/or McQueen for Truck Haul.
- Exclusion: Liner repair, concrete pathway repair (assuming pathway can handle weight of dump truck)

Thanks,
Mike Monoscalco
480-650-8054

EXHIBIT B
FEE SCHEDULE

EXHIBIT "B"

JOB ORDER COST PROPOSAL
SUMMARY SHEET

Negotiated Prices				
	Price of Subcontractor(s)		$	-
	Price of Subconsultant(s)		$	-
	General Conditions		$	-
	Preconstruction Labor (if applicable)		$	-
	Construction Labor (if applicable)		$	206,240.00
	SUBTOTAL (NEGOTIATED PRICES):		**$**	**206,240.00**
Overhead and Profit (Coefficient per Job Order Master Agreement)		**0.08**	**$**	**16,499.20**
	TOTAL (NEGOTIATED PRICES + OVERHEAD & PROFIT):		**$**	**222,739.20**
Insurance, Bonds, & Taxes				
	Sales Tax Percentage (Current Tax Rate)	**5.07%**	$	11,292.88
	General Liability Insurance Percentage (Actual Cost per Job Order)		$	-
	Builder's Risk Insurance Percentage (Actual Cost per Job Order)		$	-
	Payment Bond (Actual Cost per Job Order)	*0.01*	$	2,340.32
	Performance Bond (Actual Cost per Job Order)	*0.01*	$	2,340.32
	SUBTOTAL (INSURANCE, BONDS, & TAXES):		**$**	**15,973.52**
	COMBINED TOTAL (TOTAL + INSURANCE, BONDS, & TAXES):		**$**	**238,712.72**
City's Allowance			**$**	**10,000.00**
	TOTAL JOB ORDER:		**$**	**248,712.72**

Per the Job Order Master Agreement - This Fee Table includes all fees, costs, insurance and bond premiums, allowances, construction contingency, and taxes of any type necessary to fully, propertly and timely perform and construct the Work. Also per the Job Order Master Agreement - For any portion of the Work which, either through this Contract, Change Order or otherwise, is performed and paid for on a cost, or time and materials basis, the costs may be reimbursed to JOC Contractor and chargeable against the Contract Price will be determined as set forth in MAG 109.5.

EXHIBIT C BOND #107340393

PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT: NESBITT CONTRACTING CO., INC. (hereinafter "Principal"), and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA (hereinafter "Surety"), a corporation organized and existing under the laws of the State of CONNECTICUT with its principal office in the City of HARTFORD, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto TWELVE & 72/100---- (hereinafter "Obligee") in the amount of TWO HUNDRED FORTY-EIGHT THOUSAND, SEVEN HUNDRED- (Dollars) ($ 248,712.72), for the payment whereof, 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 _____ day of _____, 2021 for construction of **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS, SW2101.401** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice of the Surety, and during the life of any guaranty required under the contract, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this 25TH day of JANUARY, 20__.

NESBITT CONTRACTING CO., INC. INCORPORATED 1983 ARIZONA

NESBITT CONTRACTING CO., INC.
PRINCIPAL SEAL

By _____
Joe Chavez, President

PASSEY-BOND CO., INC.
AGENT OF RECORD

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
SURETY SEAL

By _____
WILLIAM J PASSEY, ATTORNEY-IN-FACT

P.O. BOX 819
MESA AZ 85211
AGENT ADDRESS

EXHIBIT D BOND #107340393

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT: NESBITT CONTRACTING CO., INC.

(hereinafter "Principal"), as Principal, and TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA (hereinafter "Surety"), a corporation organized and existing under the laws of the State of CONNECTICUT with its principal office in the City of HARTFORD, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto TWELVE & 72/100---- (hereinafter "Obligee") in the amount of TWO HUNDRED FORTY-EIGHT THOUSAND, SEVEN HUNDRED- (Dollars) ($248,712.72), for the payment whereof, the 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 _____ day of _____, 20___ for construction of **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS, SW2101.401** 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 Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said contract, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this 25TH day of JANUARY, 2021.

NESBITT CONTRACTING CO., INC.
PRINCIPAL SEAL

By _____
Joe Chavez, President

PASSEY-BOND CO., INC.
AGENT OF RECORD

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
SURETY SEAL

By _____
WILLIAM J PASSEY, ATTORNEY-IN-FACT

P.O. BOX 819
MESA AZ 85211
AGENT ADDRESS

TRAVELERS

Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **WILLIAM J PASSEY** of **Mesa** **Arizona** , their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory 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, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd** day of **February, 2017.**

State of Connecticut

City of Hartford ss.

By: _____
Robert L. Raney, Senior Vice President

On this the **3rd** day of **February, 2017**, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June, 2021**

Marie C. Tetreault
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **25TH** day of **JANUARY** , **2021**

Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary

To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.

STATE OF ARIZONA

DEPARTMENT OF INSURANCE

CERTIFICATE OF AUTHORITY

I, **JOHN A. GREENE**, Director of Insurance of the State of Arizona, do hereby certify that

TRAVELERS CASUALTY AND SURETY COMPANY OF AMERICA
Domiciled in Connecticut
NAIC NO. 31194

is hereby authorized, subject to the provisions thereof and the Charter Powers of said Company, to transact the business of:

CASUALTY WITH WORKERS' COMPENSATION
DISABILITY
MARINE AND TRANSPORTATION
PROPERTY
SURETY
VEHICLE

insurance within the State of Arizona until terminated at the request of the insurer or suspended or revoked by the Director of Insurance.

Arizona Revised Statute § 20-217 (C) states:

> ***A Certificate of Authority** remains the property of the State of Arizona. Upon termination at the request of the insurer or revocation by the Director of Insurance, the insurer shall immediately deliver the Certificate of Authority to the Director of Insurance.*

In TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Director of Insurance at the City of Phoenix. The effective date of this Certificate is July 1, 1997.

John A. Greene
Director of Insurance

E146 (01/97)

301807 **000843**

EXHIBIT E

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona

Date _____

Project Name: **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS**
Project No.: **SW2101.401**

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of $_____, as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20____.

_____
CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

_____
Notary Public

_____
My Commission Expires

EXHIBIT F

CERTIFICATE OF COMPLETION

Project: **SOLID WASTE LANDFILL WEST SIDE STORMWATER CHANNEL IMPROVEMENTS**
Project No.: **SW2101.401**

(TO BE COMPLETED BY CONTRACTOR)

I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER PROJECT NO. **SW2101.401** HAVE BEEN DELIVERED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE CONTRACTOR UNDER THE CONTRACT HAVE BEEN COMPLETED AS OF _____.
(Date)

FIRM NAME: _____

PRINCIPAL: _____
(Name)

_____
(Signature)

_____ DATE: _____
(Title)

CERTIFIED BY ENGINEER/CONSULTANT (*IF APPLICABLE*):

_____ DATE: _____
(Signature)

_____
(Firm Name)

PROJECT ACCEPTED BY USER DEPARTMENT

_____ DATE: _____
(Signature)

_____
(Dept. /Div.)

_____ Date of Final Walk-Through

_____ Date As-Built Received

_____ City As-Built Number

CHANDLER arizona
Community of Innovation

City Council Memorandum **Public Works & Utilities** **Memo No.** CP21-075

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
Andrew Goh, Capital Projects Manager

From: Gina Ishida-Raybourn, Utilities Engineering Manager

Subject: Construction Manager at Risk Contract No. WA2008.251, with Achen-Gardner Construction, LLC, for the Loop 101 and 202 Freeway Waterline and Sewer Rehabilitation Pre-Construction Services

---

Proposed Motion:

Move City Council award Construction Manager at Risk Contract No. WA2008.251 to Achen-Gardner Construction, LLC, for the Loop 101 and 202 Freeway Waterline and Sewer Rehabilitation Pre-Construction Services, in an amount not to exceed $249,854.82.

Background/Discussion:

In February 2018, the City experienced a large water main break northeast of the intersection of Price Road and the Loop 202 Santan Freeway. Staff responded quickly by shutting down the 36-inch diameter water transmission main. In the following months, the City hired a consultant and contractor to evaluate the cause and condition of damaged pipeline and perform necessary repairs. The condition assessment of the pipeline revealed that it was in poor condition and recommended that rehabilitation or replacement of the pipe be considered.

The project scope of work consists of constructability studies and review, value engineering, project planning and scheduling, assistance in the coordination of contract documents, utility location, and preparation of Guaranteed Maximum Price packages. The contract completion time is 360 calendar days following Notice to Proceed. Construction-related contracts will be awarded separately.

The City and the Arizona Department of Transportation (ADOT) share a substantial interest in maintaining proper operation and long-term viability of these pipeline segments that cross beneath the Loop 101 and Loop 202 freeway interchange. The City will continue to engage ADOT to partner in future efforts to assess and repair these pipelines.

Evaluation:

The selection process was followed in accordance with City policy and procedure and State law. Staff recommends contract award to Achen-Gardner Construction, LLC, based on qualifications, relevant firm experience, team experience, project understanding, and project approach.

Fiscal Impact

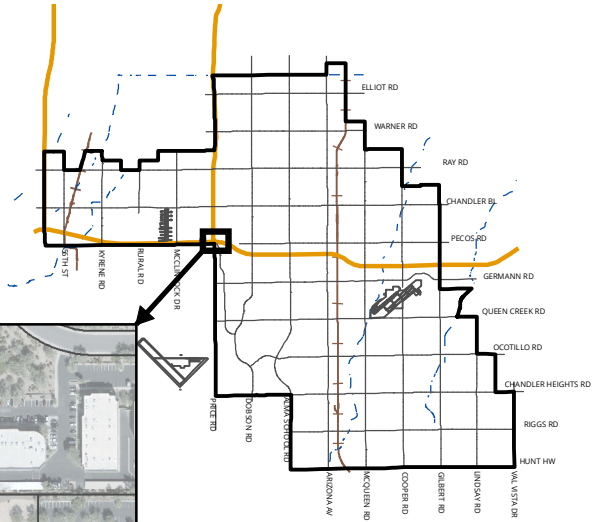
Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
605.3820.6714.6WA023	Water Operating	Water Main Replacements	$249,854.82	Y

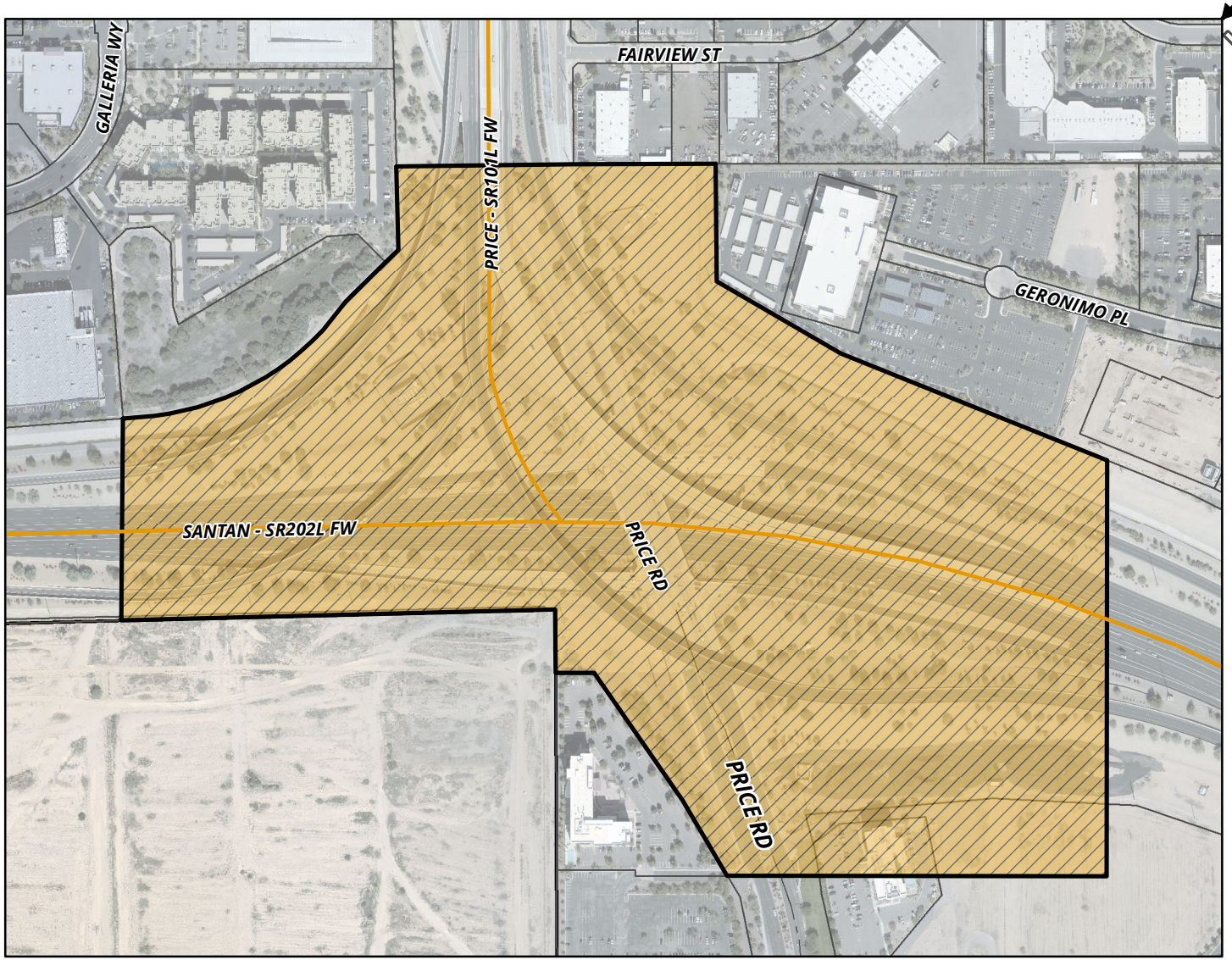
Attachments

Location Map
Contract

CHANDLER arizona

LOOP 101 AND 202 FREEWAY
WATERLINE AND SEWER REHABILITATION
PROJECT NO. WA2008.251





MEMO NO. CP21-075

PROJECT LOCATION

NTS

ChanGIS

F:\ENGINEER\GENSERV_ArcMap_Shared\Map Requests\Capital Projects\CP21-075 LOOP 101 AND 202 WATERLINE AND SEWER REHAB\CP21-075.mxd 1/21/2021 MARICELAH

CITY OF CHANDLER, ARIZONA

LOOP 101 AND 202 FREEWAY WATERLINE AND SEWER REHABILITATION

CITY PROJECT NO. WA2008.251

PRE-CONSTRUCTION SERVICES CONTRACT

(CONSTRUCTION MANAGER AT RISK)

Andrew Goh, P.E.
CIP City Engineer

CITY OF CHANDLER, ARIZONA

LOOP 101 AND 202 FREEWAY WATERLINE AND SEWER REHABILITATION
CITY PROJECT NO.: WA2008.251

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CONSTRUCTION MANAGER AT RISK
PRE-CONSTRUCTION SERVICES CONTRACT
PROJECT NO.: WA2008.251

THIS CONTRACT is made and entered into on the _____day of _____, 2021, ("Effective Date") by and between City of Chandler, an Arizona municipal corporation, hereinafter called "City" and the "Construction Manager at Risk" or "CM@Risk" designated below (City and CM@Risk may individually be referred to as "Party" and collectively referred to as "Parties").

City and CM@Risk agree as follows:

ARTICLE 1 - PARTICIPANTS AND PROJECT

CITY: **City of Chandler**
CIP City Engineer: Andrew Goh
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
Phone: 480-782-3343
Email: andrew.goh@chandleraz.gov

CM@Risk: **Achen-Gardner Construction, LLC**
550 S. 79th St., Chandler, AZ 85336
Business Organization: **Limited Liability Company**
State Where Organized: **Arizona**
CM@Risk Representative: **Christie Hall**
Phone: **602-376-0356**
Email: **chall@achen.com**

PROJECT DESCRIPTION:

Pre-construction services for the Loop 101 and 202 Freeway Waterline and Sewer Rehabilitation Project.

PROJECT LOCATION:

Loop 101 and 202 Freeway interchange

ARTICLE 2 - CONTRACT DOCUMENTS

2.1 CONTRACT DOCUMENTS

The Contract between City and CM@Risk will consist of the following Contract Documents:

1. This Pre-Construction Services Contract and all of its Exhibits, incorporated by reference;
2. General Conditions and General Conditions Appendices, incorporated by reference;
3. **Exhibit A** – Pre-Construction Scope of Work and Schedule;
4. **Exhibit B** – Compensation and Fee Schedule;
5. **Exhibit C** – Insurance Requirements;
6. **Exhibit D** – Submittal Requirements for GMP/Price Proposal.

2.2 DEFINITIONS

The definitions in Sections 2 and 15.1 of the General Conditions apply to all the Contract Documents, including this Contract. Additional definitions or defined terms applicable to all the Contract Documents for this Project, if any, include the following:

N/A

ARTICLE 3 - PRE-CONSTRUCTION SERVICES

3.1 SERVICES

CM@Risk must provide all of the services and perform in accordance with Section 17 of the General Conditions. The major components of Pre-Construction Services and the corresponding subsections of Section 17 of the General Conditions are set forth below.

3.2 GENERAL REQUIREMENTS

3.2.1 CM@Risk must perform the services required by, and in accordance with this Contract and as outlines in the attached **Exhibit A** to the satisfaction of the Project Manager, in full compliance with Section 17.2.1 of the General Conditions.

3.2.2 In performance of the Services under this Contract, the CM@Risk must fully comply with all applicable Laws, Regulations, or Legal Requirements applicable to City, the Project, and the Contract.

3.2.3 CM@Risk must perform the Services under this Contract using only those firms, team members, and individuals designed by CM@Risk consistent with the Statement of Qualifications or as otherwise approved by City in accordance with the General

Conditions. No other entities or individuals may be used without the prior written approval of City.

3.2.4 CM@Risk will comply with all terms and conditions of the General Conditions.

3.2.5 In the event of a conflict between this Contract and the General Conditions or any exhibit hereto or appendix thereto, the terms of this Contract will control.

3.2.6 **Ownership of Work Product**. Notwithstanding anything to the contrary in this Contract, all Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City, as set forth in Section 17.2.6 of the General Conditions.

3.3 **DESIGN PROJECT SCHEDULE**

CM@Risk must prepare and present to City a Detailed Project Schedule that is acceptable to the City and in accordance with Section 17.3 of the General Conditions.

3.4 **DESIGN DOCUMENT REVIEW**

CM@Risk must conduct the evaluations, perform the design document reviews, make the recommendations, and provide the other Services referenced in accordance with Section 17.4 of the General Conditions.

3.5 **BASELINE COST MODEL, DETAILED COST ESTIMATES, AND SCHEDULE OF VALUES**

3.5.1 CM@Risk must prepare and submit the Baseline Cost Model, Detailed Cost Estimates, and Schedule of Values in accordance with Section 17.5 of the General Conditions.

3.5.2 The submitted Baseline Cost Model, Detailed Cost Estimates, and Schedule of Values must not exceed the City's Construction Budget, which is **$4,000,000** ("Construction Budget"). If CM@Risk submits a Baseline Cost Model, Detailed Cost Estimates, and Schedule of Values that exceeds the Construction Budget, negotiations could lead to termination or suspension of the Contract.

3.6 **SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS**

CM@Risk must select and obtain approval of Subcontractors and Suppliers in accordance with Section 17.6 of the General Conditions.

3.7 **GUARANTEED MAXIMUM PRICE (GMP) PROPOSAL**

3.7.1 CM@Risk must submit a GMP Proposal for the entire Work, and for each phase (if required) of the Work, at the times set forth in the Pre-Construction Schedule included in attached. The GMP Proposal must be presented in a format acceptable to City based upon the attached **Exhibit D**. City may change the schedule, format, and/or requirements for the GMP Proposal as it deems necessary during Pre-Construction, and may request resubmittal of the GMP Proposal to reflect such changes.

3.7.2 Preparation, submittal, review, and approval (or disapproval, if applicable) of the GMP Proposal will be done in accordance with Section 17.7 of the General Conditions.

3.7.3 For the purposes of the GMP Proposal, the Parties agree that:

a. The CM@Risk Fee will be equal to **9%** (percent) of the Cost of Work;
b. General Conditions costs will be a fixed amount or percentage agreed to as part of the Baseline Cost Model.

3.7.4 The GMP Proposal must not exceed the City's Construction Budget.

3.8 **ADDITIONAL PRE-CONSTRUCTION SERVICES**

3.8.1 Additional services which are outside the scope of the services required under the Contract Documents will not be performed by CM@Risk without prior written authorization from City. Additional services, when authorized by an executed written Change Order under Section 9 of the General Conditions, will be compensated for by a fee mutually agreed upon in such written Change Order between City and CM@Risk.

3.8.2 No claim for additional services, extra work done or materials furnished by CM@Risk will be allowed by City except as provided herein, nor will CM@Risk provide any additional services, do any work, or furnish any materials(s) not covered by this Contract unless such work or material is first authorized in writing by City. Work or material(s) furnished by CM@Risk without such prior written authorization will be CM@Risk's sole jeopardy, cost, and expense, and CM@Risk hereby agrees that without prior written authorization no claim for compensation for such services, work or materials furnished will be made, and City will not be responsible for such costs.

3.8.3 No Work (as defined by Section 1 of the General Conditions) may be performed under this Pre-Construction Services Contract, without prior written approval by City. As an example, all procurement of long lead time items that must be procured to support the construction schedule or site investigative Work necessary to complete Pre-Construction Services, if done by the CM@Risk, will be performed only after a GMP Proposal for the Work has been approved and accepted in writing by City and all such Work will be done only under an executed Contract for Construction Services, or pursuant to a prior written direction from City to engage in such procurement.

ARTICLE 4 - CONSTRUCTION SERVICES

If City accepts CM@Risk's GMP Proposal, CM@Risk and City will enter a Construction Services Contract for Construction of the Project based upon CM@Risk's Pre-Construction Services performed and GMP Proposal submitted pursuant to this Contract. The terms of the Construction Services Contract are being negotiated contemporaneously with this Contract and CM@Risk agrees to execute the

Construction Services Contract, without further modification, upon acceptance by City of the GMP Proposal. All of CM@Risk's obligations, duties and warranties in relation to Pre-Construction Services and Deliverables (including specifically the GMP Proposal) survive the completion of this Contract and will be incorporated into the Construction Services Contract.

ARTICLE 5 - CITY FURNISHED INFORMATION

5.1 City, at no cost to CM@Risk, will furnish the following to CM@Risk:

5.1.1 One copy of data in City's possession or control which City determines in its discretion to be pertinent to the Work. However, CM@Risk will be responsible for searching the records and requesting information it deems reasonably required for the Project.

5.1.2 Electronic copies of programs, reports, drawings, and specifications reasonably required by CM@Risk, to the extent in possession of City.

ARTICLE 6 - CONTRACT TIME

Contract Duration is **360** Calendar Days. The Pre-Construction Services described in this Contract must be performed by CM@Risk in accordance with the Pre-Construction Schedule set forth in attached **Exhibit A**, as updated and expanded in the most current updated/revised and approved Detailed Project Schedule. Failure on the part of CM@Risk to adhere to the Pre-Construction Schedule requirements for activities for which it is responsible and in control will be deemed a material breach and sufficient ground for termination for cause of this Contract by City.

ARTICLE 7 - CONTRACT PRICE

7.1 In exchange for CM@Risk's full, timely, and acceptable performance of the Services under this Contract, and subject to all of the terms of this Contract, City will pay CM@Risk a fee of **$249,854.82** (the "Contract Price"). The method of payment for this Contract is Hourly, Not-to-Exceed. The amount paid will not exceed the Contract Price for actual costs incurred, based on the negotiated hourly rates and reimbursement schedule as defined in **Exhibit B**, Compensation and Fee Schedule.

7.2 The Contract Price is all-inclusive, and City will not pay any additional amounts, costs or expense, except for only those specifically designated reimbursable costs, without markup, as set forth in **Exhibit B**.

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties hereto have executed this Contract through their duly authorized representatives and bind their respective entitles as of the Effective Date.

"CITY"
CITY OF CHANDLER

MAYOR Date

Recommended By:

Andrew Goh, P.E.
CIP City Engineer

APPROVED AS TO FORM:

City Attorney
ATTEST:

City Clerk Seal

"CM@Risk"
Achen-Gardner Construction, LLC

1-15-2021

Signature Date

Daniel J. Spitza / Vice President

Print Name

Title

ATTEST: If Corporation

Secretary

EXHIBIT A

PRE-CONSTRUCTION SERVICES
SCOPE OF WORK AND SCHEDULE

Exhibit A
CM@RISK PRE-CONSTRUCTION SERVICES
SCOPE OF WORK
CMAR FOR LOOP 101 AND 202 FREEWAY WATERLINE AND SEWER REHABILITATION
WA2008.251

Note: The sections below are numbered to correspond with General Conditions, Section 17 – Provisions Applicable Solely to Pre-Construction Services for Construction Manager at Risk.

17.2 – GENERAL

Project Kick-off Meeting

Attend and participate in Project Kick-off meeting. CM@Risk will provide drawings, schedule diagrams, budget charts, and other materials describing the Project, when their use is required for the meeting.

Stakeholders and Public Agencies Meetings

Attend and participate, as may be appropriate, in meetings related to the Project with Stakeholders and Public Agencies.

Project/Design Meetings

Participate in bi-weekly or monthly Project/Design meetings.

Construction Document Rolling Reviews

Participate in Construction Document Rolling Review meetings. Review of documents as received from Project Designer; feedback consistent with sound and generally accepted construction management and contracting practices related to procurement, cost impact, schedule, quality, and operation/maintenance.

Value Engineering Review Meetings

Participate in Value Engineering Review meetings or Value Engineering workshops. Project Team will routinely assist to identify and evaluate, using engineering principles, any alternate systems, approaches, and design changes that have the potential to reduce Project costs while still delivering a quality and functional product that meets the design intent.

Utility Coordination Meetings

Participate in Utility Coordination meetings. CM@Risk will attend, make presentations, and participate as may be appropriate, in Utility Coordination meetings related to the Project. CM@Risk will provide drawings, schedule diagrams, budget charts, and other materials describing the Project, when their use is required for the meeting.

Comment Resolution Meetings

Participate in meetings with the Consultants and City to review constructability/bid-ability comments after design submission for both 60% and 90% design.

GMP Review/Negotiation Meetings

Participate in meetings with City to review the GMP after submission.

17.3 – DETAILED PROJECT SCHEDULE

Develop Design Phase Schedule

Prepare and present to City a detailed design phase project schedule with input from City and Project Designer which utilizes the Critical Path method (CPM) technique

Design Phase Schedule - Monthly Updates

Provide monthly updates to current schedule with monthly progress reports; analysis of progress achieved to-date against baseline, including any concerns regarding delays or potential delays and any recommendations regarding mitigating actions.

Develop Preliminary Construction Schedule & Phasing Plans

Transition design phase schedule to overall project schedule in association with the baseline cost model and proposed phasing plans for early equipment procurement and/or construction activities and the remainder of the construction phase.

Long Lead Analysis and Recommendations

Identify all long lead time materials, fabrications, equipment or other items which may impact the Project Schedule and may require early action on the part of the Project Team including dates required for selecting and procuring such items.

Equipment Plan

Prepare and present to City an Equipment Plan that addresses all rental and owned equipment that is necessary to construct the Project as outlined in General Conditions Section 17.3.6.

17.4 – DESIGN DOCUMENT REVIEWS

Value Analysis/Efficiency Analysis

Evaluate periodically the availability of labor, materials/equipment, cost-sensitive aspects of the design; and other factors that may create an unacceptable variance to the Baseline Cost Model and/or Baseline Project Schedule; use established value analysis principles in recommending cost effective alternatives

Utility Design Review and Comment

Perform reviews and provide written comments on the utility relocation and design submittals and for coordination with the design development for construction of the Project.

Constructability and Bid-ability Reviews

Perform reviews and provide written comments on the project design submittals and for construction drawings, construction documents, various analyses, and studies and investigations conducted for the design of the Project. Includes, but is not limited to, review and evaluate Design Development documents for clarity, consistency, completeness, and ease of construction in order to achieve the overall

objective of the Project. Review prior project as-built plans. Evaluate construction safety issues and proposals of construction safety improvements, as may be applicable. CM@Risk will evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) the design promotes accessibility of personnel, material and equipment, and facilitates construction under adverse weather conditions; (e) sequences of Work required by or inferable from the Drawings and Specifications are practicable; and (f) the design has taken into consideration, efficiency issues concerning access and entrance to the site, lay down and storage of materials, staging of site facilities, construction parking, and other similar pertinent issues. Review comments will be compiled at each of the following design phase milestones: 60% and 90%.

Document Complementary Review and Cross Checks

Perform reviews and provide written comments regarding the bid-ability of the Project. CM@Risk will check cross-references and complementary Drawings and sections within the Specifications, and in general evaluate whether (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies; (b) named materials and equipment are commercially available and are performing well or otherwise in similar installations; (c) Specifications include alternatives in the event a requirement cannot be met in the field; and (d) in its professional opinion, the Project is likely to be subject to differing site conditions. Review comments will be complied at each of the following design phase milestones: 60% and 90%.

Maintenance of Plant Operations (MOPOs)

Evaluate scope and design for tasks that have the potential to effect plant operations; lead development of planning to minimize or eliminate disruption to Owner's facilities.

Utility/Site Investigations

Participate in site investigation and utility potholing as deemed necessary to pothole, identify, and record existing utilities to avoid conflicts during design planning.

17.5 – BASELINE COSTS MODEL, DETAIL COST ESTIMATE, SCHEDULE OF VALUES

30% Cost Model (Baseline Cost Model)

Upon receipt of acceptable 30% drawings, CM@Risk will review all available information regarding design and scope of the Project using the CM@Risk's experience in performing similar work, knowledge of similar projects, and current and projected construction costs and, based upon that review, must develop a Baseline Cost Model for review by the Project Team and approval by City.

60% Cost Model

Upon receipt of acceptable 60% drawings and specifications, CM@Risk will review all available information regarding the design and scope of the Project using CM@Risk's experience in performing similar work, knowledge of similar projects and current

and projected construction costs and, based upon that review, must update the Cost Model for review by the Project Team and approval by City.

Continuous Cost Model/Estimate Updates (Design Evolution Log)

Track, estimate/price, and address the Project Team's overall project cost issues that arise outside of the Baseline Cost Model and the latest approved Detailed Cost Estimate such as: City generated changes, Project Team proposed changes, alternate system analysis, constructability items and value engineering analysis.

Schedule of Values

Prepare and submit Schedule of Values for review by the Project Team and approval by City.

Cash Flow Projections

Prepare and submit cash flow projections upon request by City.

17.6 – SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS

Procurement Prequalifications & Subcontractor Prequalification

Evaluate potential suppliers and subcontractors with respect to safety, financial capacity, ability to meet/exceed schedule, and quality in order to obtain adequate pool of acceptable bidders.

Subcontractor Selection Plan

Develop and submit written subcontractor selection plan per General Conditions Section 17.6 with justification for any qualifications based selections proposed.

Subcontractor Bid Evaluation/Reports

Prepare and submit detailed list of recommended subcontractors and summary report of the entire selection process.

Pre-bid Conference

Plan, communicate, and conduct pre-bid conference with prospective subcontractors and suppliers.

17.7 – GMP PROPOSAL

Early Equipment/Early GMP Preparation

Identify long-lead equipment that will greatly improve schedule if procured in an early GMP; work with Owner and Project Designer in developing required Contract Documents to facilitate this procurement.

GMP Preparation and Submission

Prepare and submit the GMP Proposal in accordance with City's request for GMP Proposal requirements based on the most current completed Drawings and Specifications at that time, which unless otherwise directed by City in writing, will be at 100% Construction Drawings. Preparation and submission of phased GMP Proposals submitted for the Project (such as a separate GMP for long lead equipment or phased construction) are also included in this item.

17.8 – PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES

Monthly Progress Reports/Request for Payment

Prepare and submit monthly request for payment accompanied by a progress report, detailed invoices and receipts, if applicable.

ALLOWANCE ITEMS

Site Utility Investigations (Potholing) – Allowance

An allowance to supply a potholing subcontractor to continue investigating unknown utilities and locations (if required or not performed by the Project Designer).

Other Site Investigations – Allowance

An allowance to provide excavations to locate the casing ends of the water line(s), determine soil conditions, and evaluate the potential need for cathodic protection.

Reprographic – Allowance

An allowance to be used to print, prepare, and/or reproduce plans, specifications, exhibits, etc.

Owner's Allowance

An allowance to be used as directed by City.

EXHIBIT B

COMPENSATION AND FEE SCHEDULE

EXHIBIT B
CM@RISK PRE-CONSTRUCTION SERVICES
FEE PROPOSAL
CMAR FOR LOOP 101 AND 202 FREEWAY WATERLINE AND SEWER REHABILITATION
WA2008.251
December 11, 2020

	Hours	Cost
17.2 - GENERAL	**200.0**	**$26,950.13**
Project Kick-off Meeting	7.5	$1,052.36
Stakeholders and Public Agencies Meetings	12.0	$1,748.28
Project Design Monthly Meetings	49.0	$6,744.72
Construction Document Rolling Reviews	22.5	$3,144.14
Value Engineering Review Meetings	8.0	$1,128.94
Utility Coordination Meetings	16.0	$2,207.82
Comment Resolution Meetings (60% & 90%)	22.0	$2,888.28
GMP Review/Negotiation Meetings (Long-lead/Assessment GMP & Project GMP)	12.0	$1,671.20
Pre and Post Meeting Coordination/Admin	51.0	$6,364.40
17.3 - DETAILED PROJECT SCHEDULE	**44.0**	**$5,661.80**
Develop Design Phase Schedule	5.0	$628.50
Design Phase Schedule Monthly Updates	6.0	$738.30
Develop Preliminary Construction Schedule & Phasing Plans	20.0	$2,492.38
Long Lead Analysis and Recommendations	13.0	$1,802.62
Equipment Plan (Incl. in GMP Reports)	0.0	$0.00
17.4 - DESIGN DOCUMENT REVIEWS	**292.0**	**$39,805.79**
Value Analysis / Efficiency Analysis (Done in conjunction with SOV and Estimate Updates - 17.5) (30%	12.0	$1,676.69
Utility Design Review and Comment	14.0	$1,948.34
Constructability and Bidability Reviews	132.0	$17,792.76
Document Complementary Review and Cross-checks (Incl. in 17.4.3)	0.0	$0.00
Maintenance of Plant Operations (MOPOs)	50.0	$6,905.52
Utility / Site Investigations (Coordination, Planning, Supervision)(See Allowances for Construction)	84.0	$11,482.48
17.5 - BASELINE COSTS MODEL, DETAIL COST EST, SCHEDULE OF VALUES	**260.0**	**$34,169.04**
30% Cost Model (Baseline Cost Model)	150.0	$19,749.64
60% Estimate & Variance Report	104.0	$13,556.56
Continuous Cost Model / Estimate Updates (Design Evolution Log)(Incl. 17.5.2 & 17.5.3	0.0	$0.00
Schedule of Values (Incl. in 17.5.2 with development of 30% Cost Model	0.0	$0.00
Cash Flow Projections (GMP Submittal)	6.0	$862.84
17.6 - SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS	**117.0**	**$15,326.86**
Procurement / Subcontractor Prequalifications	30.0	$3,981.62
Subcontractor Selection Plan	13.0	$1,699.28
Subcontractor Bid Evaluation / Reports	58.0	$7,515.22
Pre-bid Conference or One-on-on Meetings	16.0	$2,130.74
17.7 - GMP PROPOSALS	**160.0**	**$21,030.00**
Long-lead Equipment / Early GMP Preparation & Submittal	64.0	$8,476.60
GMP Preparation and Submittal	96.0	$12,553.40
17.8 - PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES	**36.0**	**$4,411.20**
Monthly Progress Reports / Request for Payment	36.0	$4,411.20
SUBTOTAL:	**1,109.0**	**$147,354.82**
REIMBURSABLES & ALLOWANCES		**$102,500.00**
Site Utility Investigations (Potholing) - Allowance ($1,200 ea)		$30,000.00
Other Site Investigations (i.e. Locate Casing Ends, Soil Conditions) - Allowance ($3,500 ea)		$21,000.00
Reprographics - Allowance		$1,500.00
Owner - Allowance (to be utilized for subconsulting services such as Sonoran Sales, ARC, PNL and others as needed, unforeseen circumstances requiring additional scope, and/or Owner directed scope changes)		$50,000.00
TOTAL:		**$249,854.82**

EXHIBIT C

INSURANCE REQUIREMENTS

1. General.

1.1 At the same time as execution of this Agreement, CM@Risk must furnish City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement will not be deemed to apply to required Workers' Compensation coverage.

1.2 CM@Risk and any of its subconsultants must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

1.4 City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect CM@Risk from liabilities that might arise out of the performance of the Agreement services under this Agreement by CM@Risk, its agents, representatives, employees, subconsultants, and CM@Risk is free to purchase any additional insurance as may be determined necessary.

1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve CM@Risk from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

1.6 Use of subconsultants: If any work is subcontracted in any way, CM@Risk must execute a written contract with subconsultant containing the same Indemnification Clause and Insurance Requirements as City requires of CM@Risk in this Agreement. CM@Risk is responsible for executing the Agreement with the subconsultant and obtaining Certificates of Insurance and verifying the insurance requirements.

2. Minimum Scope and Limits of Insurance. CM@Risk must provide coverage with limits of liability not less than those stated below.

2.1 *Commercial General Liability-Occurrence Form*. CM@Risk must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000

for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.2 *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles*
Vehicle Liability: CM@Risk must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on CM@Risk owned, hired, and non-owned vehicles assigned to or used in the performance of CM@Risk's work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.3 *Workers Compensation and Employers Liability Insurance*: CM@Risk must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of CM@Risk employees engaged in the performance of work or services under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

2.4 *Professional Liability*. If the Agreement is the subject of any professional services or work performed by CM@Risk, or if CM@Risk engages in any professional services or work adjunct or residual to performing the work under this Agreement, CM@Risk must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by CM@Risk, or anyone employed by CM@Risk, or anyone whose acts, mistakes, errors and omissions CM@Risk is legally liable, with a liability limit of $1,000,000 each claim and $2,000,000 all claims. In the event the Professional Liability insurance policy is written on a "claims made" basis, coverage must extend for 3 years past completion and acceptance of the work or services, and CM@Risk, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

3. Additional Policy Provisions Required.

3.1 *Self-Insured Retentions or Deductibles.* Any self-insured retentions and deductibles must be declared and approved by City. If not approved, City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to City, its officers, officials, agents, employees, and volunteers.

3.1.1. CM@Risk's insurance must contain broad form contractual liability coverage.

3.1.2. CM@Risk's insurance coverage must be primary insurance with respect to City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by City, its officers, officials, agents, and employees will be in excess of the coverage provided by CM@Risk and must not contribute to it.

3.1.3. CM@Risk's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3.1.4. Coverage provided by CM@Risk must not be limited to the liability assumed under the indemnification provisions of this Agreement.

3.1.5. The policies must contain a severability of interest clause and waiver of subrogation against City, its officers, officials, agents, and employees, for losses arising from Work performed by CM@Risk for City.

3.1.6. CM@Risk, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. CM@Risk must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

3.1.7. If a Certificate of Insurance is submitted as verification of coverage, City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

3.2. *Insurance Cancellation During Term of Contract/Agreement.*

3.2.1. If any of the required policies expire during the life of this Agreement, CM@Risk must forward renewal or replacement Certificates to City within 10 days after the renewal date containing all the required insurance provisions.

3.2.2. Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to City, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, CM@Risk or its

insurance broker must notify City of any cancellation, suspension, non-renewal of any insurance within seven (7) days of receipt of insurers' notification to that effect.

3.3 *City as Additional Insured*. The policies are to contain, or be endorsed to contain, the following provisions:

3.3.1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, CM@Risk including City's general supervision of CM@Risk; Products and Completed operations of CM@Risk; and automobiles owned, leased, hired, or borrowed by CM@Risk.

3.3.2. City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by CM@Risk even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT D

SUBMITTAL REQUIREMENTS FOR GMP/PRICE PROPOSAL
(Page 1 of 2)

1. Unless otherwise instructed, CM@Risk must submit 3 bound copies of any GMP Proposal(s) that includes the following documents, complies with the requirements specified in this Contract and the following instructions. The GMP Proposal(s) must be organized as follows:

   A. Table of Contents
   B. Project Description
   C. GMP Proposal and the following attachments:
      i. Detailed Cost Estimate upon which the GMP is based and if for phased work, a total project Detailed Cost Estimate as of the time of the phased GMP Proposal.
      ii. List of Subcontractors
      iii. Schedule of Manufacturers and Suppliers
   D. Schedule of Values ("SOV")
   E. Project Schedule and a variance report to the Baseline Project Schedule
   F. Construction phasing/traffic control (if applicable)
   G. List of GMP Plans and Specifications

2. A summary breakdown of the GMP Proposal is shown on page 2 of this Exhibit, along with instructions regarding certain line items. The definitions included in Section 1 of the General Conditions apply to the line items, as appropriate, and set-forth the criteria to be used by CM@Risk in providing the required breakdown.

3. The most current version of CM@Risk's SOV must be submitted with the GMP Proposal. Supporting documents for the SOV, including the request for bids, copies of bids received and clarification assumptions used for the particular bid item listed must be provided in an organized matter that correlates with the SOV.

4. The final accepted GMP must not include any clarifications/assumptions made by CM@Risk in the preparation of the GMP Proposal, unless any such clarification or assumption is agreed to in writing by City.

5. The most current version of CM@Risk's Detailed Project Schedule must be submitted with the GMP Proposal with a variance report from the project's Baseline Schedule. The Detailed Project Schedule must be prepared as specified in this Contract.

6. A table listing all drawing sheets included in the GMP Plans and Specifications must be included with the GMP package. The table must include the following information: Sheet Number, Sheet Name, Sheet Version, and Date of Issuance. The GMP Proposal and Specifications, as defined, must be transmitted as specified in this Contract.

NOTE: The submittal package must be kept as simple as possible all on 8 ½ x 11 sheets. Color or shading must be kept to a minimum. If used, make sure the color or shading will not affect the reproduction of the submittal in black and white.

EXHIBIT D

CM@RISK GMP SUMMARY (PAGE 2 of 2)

Project Name:		Date:	
Project Location:			
City of Chandler Project No.:			

	Amount
A. Cost of Work	
A1 Cost of Work (self perform, no mark-up)	$0.00
A2 Cost of Work (subcontractors, suppliers, materialmen)	$0.00
TOTAL COST OF WORK:	**$0.00**
B. General Conditions	**$0.00**
SUBTOTAL 1 (Cost of Work) (A + B):	**$0.00**
C. CM@Risk's Fee	**$0.00**
SUBTOTAL 2 (A + B + C):	**$0.00**
D. Bonds and Insurance (on Subtotal 1)	
D1 Bonds (Payment and Performance)	$0.00
D2 Insurance	$0.00
TOTAL BONDS & INSURANCE:	**$0.00**
SUBTOTAL 3 (SUBTOTAL 2 + BONDS & INS):	**$0.00**
E. Sales Tax	
E1 Sales Tax	$0.00
E2 Tax Credits	$0.00
TOTAL SALES TAX:	**$0.00**
F. Approved Allowances	
F1 Owner's Allowance	$0.00
F2 Owner's Allowance for Water and Wastewater	$0.00
TOTAL ALLOWANCES:	**$0.00**
G. Contingencies	
G1	$0.00
G2	$0.00
TOTAL CONTINGENCIES:	**$0.00**
TOTAL GMP PROPOSAL:	**$0.00**

Establishment of Values:

a. Cost of Work (A) and Allowances (F) to be submitted with GMP Proposal.

b. General Conditions Cost (B) to be established in Baseline Cost Model.

c. CM@Risk Fee as set forth in Section 3.7.3 of this Contract

GENERAL CONDITIONS
AND
GENERAL CONDITIONS APPENDICES

GENERAL CONDITIONS

Approved date: January 8, 2021

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SECTION 1 - SCOPE OF THESE GENERAL CONDITIONS

These General Conditions encompass provisions that apply, and are incorporated into all construction contracts entered into by the City of Chandler, unless otherwise specifically excluded in the executed Contract.

SECTION 2 - GENERAL DEFINITIONS

Allowance: A specific amount for a specific item of Work, if any, that City agrees has not been sufficiently designed, detailed, or selected (including design changes from 90% to 100% as authorized by and at the discretion of the City) at the time the Contract Price is agreed to for Contractor to provide a definitive price.

Alternate Systems Evaluations or Alternative Analysis: Alternatives for design, means and methods or other scope considerations that are evaluated using value analysis principles and have the potential to reduce construction costs while still delivering a quality and functional Project that meets City requirements.

Change Order: A written instrument issued after execution of the Contract Documents signed by City and Contractor, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or deliverables; the amount of the adjustment to the Contract Price, the extent of the adjustment to the Contract Time, or modifications of other contract terms. The Contract Price and the Contract Time may be changed only by Change Order.

Consultant: Person or firm that provides professional services.

City (Owner or OWNER): City of Chandler, a municipal corporation, with whom Contractor has entered into the Contract and for whom the Work or Services are to be provided pursuant to the Contract(s).

Contingent Bid Items: This is a minor bid item which is likely, but not certain, to occur during the course of work. If the Engineer determines that this work is required, the Contractor will accomplish the work and payment will be made based on the contingent unit bid price included in the proposal. Since the quantity listed in the proposal is primarily for bid comparison, the amount of work required by the Engineer may vary materially from this.

Contract: The written agreement executed between City and Contractor, including all of the Contract Documents.

Contract Documents: The documents which together form the Contract between City and Contractor, as identified in Article 2 of the Contract, or are otherwise incorporated into the Contract, including the Contract, the exhibits thereto, these General Conditions, any Notice to Proceed, and any Job Order (if applicable), the Plans and Specifications, Project Schedule, written and properly executed Change Orders, MAG Specifications and City's amendments thereto, and any other documents so designated in the Contract.

Contract Price: The agreed-upon price to be paid to Contractor for full, timely, and acceptable completion of the Work or Services under the terms of the Contract.

Contract Time(s): The number of calendar days or the dates related to the applicable phase, Substantial Completion, or Final Acceptance as stated in Contract Documents. Contract Time starts with the Notice

to Proceed (NTP) and ends with Final Acceptance. The Contract Time is set forth in the Contract and is based upon the Project Schedule agreed to by City in writing.

Contractor: The person or business association with whom City has entered into an agreement for construction related Work or Services in relation to the Project at issue.

Contractor Payment Request: The form that is accepted by City and used by Contractor in requesting progress payments or final payment and which must include such supporting documentation as is required by the Contract Documents or City.

Construction Budget: The City's budget for construction of the Project.

Construction Documents: The Plans, Specifications, and Drawings prepared and issued by the Design Professional and approved by City for construction, meaning the documents are sealed by the Design Professional (as required), acceptable for permitting and incorporated into the Contract by this reference. All amendments and modifications to the Construction Documents must be approved in writing by City prior to incorporation into the Contract.

Cost of the Work: The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs will be at rates not higher than the standard paid at the place of the Project except with prior consent of City.

Critical Path Method (CPM): A scheduling technique which identifies the logical sequence of the activities occurring in a Construction Project, the anticipated time required to complete each activity in the Project, and the activities that must be completed on schedule to finish the Project within the anticipated time. Typically, activities are arranged in a network that shows both activities and their dependencies. CPM is also used as a management technique which enables contracting parties to predict when activities may occur so that resources can be effectively used and limitations can be identified.

Critical Path: Critical Path is the sequence of project network activities which add up to the longest overall duration. Once established in the Project Schedule, the Critical Path for the Project must not be changed without prior written approval of City.

Day: Calendar day(s) unless otherwise specifically stated in the Contract Documents.

Design Professional: The qualified, licensed person, firm or corporation who furnishes design and construction administration services required under the Contract Documents. These services may include, but are not limited to: development of Construction Drawings and Documents, review of Contractor Submittal(s), review of and response to Requests for Information, approval and certification of progress payment applications, construction administration, and construction contract close out.

Differing Site Conditions: Concealed or latent physical conditions or subsurface conditions at the Site that, (i) materially differ from the conditions indicated in the Contract Documents, or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work at the general area of the Site. Caliche, rock, hard-digging or sandy/silty soil encountered on a project is not considered a "Differing Site Condition."

Drawings (Plans): Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by Contractor during the construction phase and which have been prepared

or approved by the Design Professional and City. These documents include Drawings that have reached a sufficient state of completion and released by Design Professional solely for the purposes of review and use in performing constructability or bid-ability reviews by Contractor and in preparing cost estimates (e.g. Master Planning and Programming, Schematic Design, Design Development, and Construction Drawings), but *"not for construction*." Shop Drawings are not Drawings as so defined.

Final Acceptance: The City's acceptance of the facility or project from the Contractor after all Work is completed, tested, and inspected in accordance with the contract requirements. Final Acceptance results in a Letter of Acceptance (LOA).

Fixed Price: A fixed price or amount for a Contract Price, Scope of Work, materials, or other item under a Contract, Change Order, or other agreement, which City agrees, in writing, to pay instead of the actual cost.

Float: The number of Days by which an activity can be delayed without lengthening the Critical Path and extending the Contract Time. Unless otherwise expressly agreed in writing, all Float belongs to City.

Laws, Regulations, or Legal Requirements: Any and all applicable laws, rules, regulations, ordinances, codes and orders applicable to the Project of any and all governmental bodies, agencies, authorities and courts having jurisdiction and any applicable provisions of the Development Agreement for the Project (if any), including, without limitation, those provisions relating to the design and construction of the Project.

Line Item: The individual elements of Work identified on a bid or other schedule and associated with a price or a unit price and quantity particular to that individual element of the Work. Also refers to individual items of work within the Schedule of Values.

Liquidated Damages: Designated damages for the City to collect as compensation upon a specific breach (example: late delivery).

Long-Lead Item: Long-lead item refers to the equipment, product, or system that is identified at the earliest stage of a project to have a delivery time long enough to affect directly the Critical Path/the overall lead time of the project.

MAG: The Maricopa Association of Governments.

MAG Specifications: The most current version of the Uniform Standard Specifications for Public Works Construction published by MAG.

MAG Standard Details: The most current version of the Uniform Standard Details as published by MAG.

Minor change: A change in the Work having no impact on cost or time or the City-approved design intent, as determined by City.

Notice to Proceed (NTP): A written notice given by City to Contractor fixing the date on which Contractor will start to perform Contractor's obligations under the Contract.

Project: The Project specified in the Contract (including a Job Order).
Project Manager: The Project Manager designated in Article 1 of the Contract, or any successor thereto designated by City. The Project Manager has the authority to act on behalf of City, as delineated and

limited by the Contract Documents and applicable law. And City will communicate with Contractor through the Project Manager. However, the Project Manager has no authority to bind City or City Council in contravention of any City code, State or Federal statute or regulation, or these General Conditions.

Project Schedule: The schedule for the completion of the Project agreed to and required by City.

Project Specific Conditions: Additional conditions which apply to the specific Project and Scope of Work which are set forth in Exhibit D of the Contract.

Project Team: The Project Team consisting of the Design Professional, Contractor, Project Manager, and such others as City may designate.

Punch List: The list initially prepared by Contractor pursuant to the Contract Documents, reviewed and supplemented by the Project Manager (and at the sole option of the Project Manager, the Design Professional) and approved by City containing items of incomplete work not impacting Substantial Completion, if allowed for under the Contract, and to be completed or corrected by Contractor after Substantial Completion and before Final Acceptance in accordance with the Contract Documents.

Quality Assurance (QA) Testing: Testing performed to verify the accuracy and applicability of the QC testing results and to ascertain that the materials installed meet the specified levels of quality in accordance with the Contract Documents.

Quality Control (QC) Testing: Testing performed to assure that the materials installed comply with the requirements in the Contract Documents.

Requests for Information (RFIs): Formal written request from Contractor to City or Design Professional for the Project seeking clarification or additional information needed for Contractor to properly complete the Work or Services under the Contract. City may require RFI's to be submitted on a specific form or in a specified format.

Schedule of Values (SOV): The specified document prepared by Contractor, and approved and accepted by City, which divides the Contract Price into pay items, such that the sum of all pay items equals the Contract Price for the construction phase Work, or for any portion of the Work having a separate specified Contract Price.

Scope of Work: The scope of work agreed to or required by City and incorporated into the Contract as Exhibit A.

Shop Drawings: All drawings, diagrams, schedules and other data specifically prepared for the Work by Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

Site: The land or premises on which the Project is located.

Specifications: The part(s) of the Contract Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. Where specified, the Project must be constructed using the current Uniform Standard Specifications and Details for Public Works Construction as furnished by the Maricopa Association of Governments, as amended by City.

Subconsultant: A person, firm or corporation having a Contract with Consultant/Contractor to furnish services required as its independent professional associate or consultant with respect to the Project.

Subcontractor: An individual or firm having a direct Contract with Contractor or any other individual or firm having a Contract with the aforesaid contractors at any tier, who undertakes to perform a part of pre-construction services or construction phase Work at the Site for which Contractor is responsible. Subcontractors must be selected through the Subcontractor selection process described in the Contract Documents, if any.

Substantial Completion: The date when the City determines that the Work (or separable units of Phases as provided in the Contract Documents) is essentially and satisfactorily complete in accordance with the Contract Documents such that the Project is ready for use by the City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories, and similar elements are installed in the proper manner and in operating condition, inspected, and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air conditioning, vertical transportation, and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other work as applicable, has been performed to a similar state of essential and satisfactory completion.

Supplier: A manufacturer, fabricator, distributor, or vendor having a direct Contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by Contractor or any Subcontractor.

Total Float: Number of Days by which pre-construction services or construction phase Work or any part of the same may be delayed without necessarily extending a pertinent Contract Time or schedule milestone in the Project Schedule.

Work: The entire completion of construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Contract Documents for the construction phase.

Writing: Typing, printing, photography and other modes of representing or reproducing words in a visible form, including email, and expressions.

SECTION 3 - STANDARD SPECIFICATIONS AND DETAILS

3.1 City operates under the latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of the City's Unified Development Manual, may be found in the downloaded from City's website at http://www.chandleraz.gov.

3.2 Copies of the MAG Specifications and MAG Standard Details are available at the Maricopa Association of Governments office, 302 N. 1st Avenue, Suite 300, Phoenix,

Arizona. They may also be downloaded from their website at: http://www.azmag.gov/Newsroom/Publications

3.3 The MAG Specifications and Standard Details and City's amendments thereto are incorporated into the Contract by this reference.

SECTION 4 - CONTRACTOR'S RESPONSIBILITIES FOR CONSTRUCTION SERVICES

4.1 **GENERAL**

4.1.1 Contractor must construct the Work in accordance with the Contract Documents and as outlined in Exhibit A of the Contract to the satisfaction of City, exercising the degree of professional care, skill, diligence, quality and judgment that a professional construction manager engaged, experienced and specializing in the construction management of construction and facilities of similar scope, function, size, quality, complexity and detail in urban areas throughout the United States comparable to Chandler, Arizona would exercise at such time, under similar conditions. Contractor must, at all times, perform the Work in conformance with sound and generally accepted engineering principles and construction management and construction contracting practices.

4.1.2 If Contractor observes errors, discrepancies or omissions in the Contract Documents, Contractor must promptly notify the Design Professional and City and request clarification. If Contractor, with the exercise of reasonable care, should have recognized such error, inconsistency, omission or difference and fails to report it to City, and if Contractor proceeds with the Work affected by such observed errors, discrepancies or omissions, without receiving such clarifications, Contractor does so at its own risk and will be liable to City for damages resulting from proceeding without clarification.

4.1.3 Project Team and agents of each of them, testing agencies and governmental agencies with jurisdictional interests will be provided access to the Work at reasonable times for their observation, inspection and testing. Contractor must provide proper and safe conditions for such access.

4.1.4 Contractor must comply with, and require all Subcontractors to comply with, the Arizona Contractors' license laws, including all requirements with respect to being duly registered and licensed.

4.1.5 Contractor must insure that all employees performing any Work for which Contractor is responsible have a legal right to live and work in the United States. In addition, all compensation of any such employee must meet all applicable requirements of the Fair Labor Standards Act (FLSA) and Federal Minimum Wage laws.

4.1.6 Contractor must comply with the Immigration Reform and Control Act of 1986 (IRCA). Contractor understands and acknowledges the applicability of the IRCA activities. Contractor agrees to comply with the IRCA while performing their work and to permit City inspection of Contractor personnel records to verify such compliance.

4.1.7 Pursuant to MAG Specifications §§ 107.4, Contractor must report immediately any discovery of archeological ruins or artifacts. Excavation must stop immediately so that City can decide on the pertinent steps to follow such discovery.

4.1.8 All property owners that may be affected by the proposed construction activities must be

notified of the scope, duration of the construction activities and possible interference with their day-to-day activities by Contractor prior to start of construction. In addition, individual residential or commercial interferences, such as driveway restrictions, water outages, and all other Work adjacent to residence/business, require 48-hour notification in advance of specific adjoining Work. Notification may be through door hangers or other procedures approved by the City.

4.1.9 Access must be maintained to adjacent properties at all times during construction. Where property has more than one point of access, no more than one access will be restricted or closed at any one time. Access to adjacent private driveways will be maintained during all non-working hours.

4.1.10 Contractor must furnish and erect construction signs in accordance with Project Specifications. The signs must be professionally prepared and subject to approval by City, must be maintained by Contractor for the duration of the project, and must be removed by Contractor during the final project clean up.

4.1.11 The number of signs required, the size, shape, installation requirements and information to be included for construction signs is established on the detail sheet, provided, however, signs must be a minimum of 4 foot by 8 foot and must be installed so that the bottom of the sign is at least 4 foot above grade. No direct payment will be made for furnishing and erecting construction signs. The cost thereof must be included in other items for which direct payment is made. Sign locations will be determined by City.

4.1.12 All required construction signs must be installed by Contractor within 7 Days of Notice to Proceed.

4.1.13 The Work to be accomplished under these Contract Documents has been designed for City by a Design Professional retained by City for this purpose. It is understood that normal construction Administration for the purpose of interpretation of the Contract Documents is provided by City. Should any services of the Design Professional be required to assist in the corrections of errors or omissions by Contractor, or services of the Design Professional be required because of changes in structure or equipment where Contractor has requested approval of substitute methods or material, or any other items detailed herein below, those services will be provided by the Design Professional at the standard hourly rates previously negotiated with City and must be paid for by the Contractor.

4.1.14 Contractor must reimburse City for costs incurred by the Design Professional for additional services to the Project through no fault of City or the Design Professional including, but not limited to, the following conditions:

a. Additional Site visits, investigations, inspections, design work or reports by the Design Professional which are required due to damages to existing facilities or completed Work caused by the Contractor in his performance, Contractor's negligence, or Contractor's Work which is rejected as defective or as failing to conform to the Contract Documents;

b. Design Professional construction phase services rendered on the project during the time the project remains incomplete after the Contract date of final completion will be charged to Contractor at a rate previously negotiated City; and

c. All retesting required due to the failure of Contractor's Work to meet the

requirements of the Contract Documents will be at Contractor's expense. All standby and travel time by the City's testing lab, the Design Professional or City due to Contractor's inability to be prepared for testing at the agreed upon time will be at the Contractor's expense.

4.1.15 City may withhold from any payment otherwise due to Contractor any amounts necessary to pay the Design Professional for such additional services as provided herein above.

4.1.16 Contractor will not be required to bear additional costs incurred by City due to errors by the Design Professional.

4.2 **CONTRACTOR'S PRE-CONTRACT AND PRE-WORK DELIVERABLES**

4.2.1 Prior to award of the Contract, Contractor must execute Contract and deliver to City. Failure to do so may delay Contract award. Contractor must also provide to City its Contractor's License classification and number and its Federal Tax I.D. number.

4.2.2 Before beginning any Work under the Contract, Contract must be fully executed by City.

4.2.3 After Contract award, City will issue to Contractor an award letter. At that time Contractor must deliver to City such bonds and certificates of insurance with endorsements in such amounts (and other evidence of insurance requested by City) required under Section 11 of these General Conditions, and as the Contract requires.

4.2.4 As evidence of Workmen's Compensation Insurance, Contractor must, upon request, provide a letter of certification from the Industrial Commission of Arizona that Contractor is insured by the State Compensation Fund or is an authorized self-insurer or a certificate of insurance issued by an insurance company authorized by the Insurance Department of Arizona to write Workmen's Compensation and Occupational Disease Insurance in the State of Arizona.

4.2.5 Within 10 Days of the date of the executed Contract letter issued by City, Contractor must submit to City for review and acceptance the following items:

4.2.5.1 Comprehensive construction Project Schedule including a Critical Path Method (CPM) diagram schedule as described in Section 6.2. Project Schedule must be in Microsoft Project standard file format. Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review.

4.2.5.2 Preliminary schedule of submittals and Shop Drawings. Within 10 Days of receipt of City's comments, Contractor must submit the corrected and completed schedule of Shop Drawings submissions for approval. Contractor's schedule of Shop Drawings and sample submittals will be acceptable to City if it provides a workable arrangement for reviewing and processing the required submittals.

4.2.5.3 Schedule of Values in a form specified by City reflecting the subcontracts and other categories that will be used to submit Pay Applications for the Work. The total amount of the Schedule of Values must not be greater than the Contract Price. The Schedule of Values will be reviewed at the Pre-Construction Conference and revised by Contractor within 10 Days after Pre-Construction Conference in response to comments and questions from City. Once accepted by City in writing, the Schedule of Values for the Project must not be changed without the prior written approval of City.

4.2.6 Video Recording Requirement. Prior to performing any Work, Contractor must document the existing conditions of the Site, all other areas where Work will occur and all adjacent areas that may be impacted by the Work via digital video format. Contractor must video record and index all areas, features, buildings and other public and private improvements that could potentially be impacted by the Work. Video recording must be coordinated with City. When video recording private property, Contractor must also coordinate the video recording with the private property owner, if possible. Contractor must provide City with a copy of said digital video format prior to performing any Work.

4.2.7 Aerial Construction Photography.

4.2.7.1 If Contract duration is greater than 90 calendar days, Contractor must engage a professional aerial photographer to photograph the Site prior to construction mobilization, at three-month intervals during construction, and following final inspection. The photos must be taken from two elevations, 1:6400 and 1:3600. The 1:6400 must center the Project in one 9-inch image. The 1:3600 must center the Project in two 9-inch images. The 9" square negatives and the following prints must be provided:

Interval	**Prints**	**Total Prints**
3 month intervals	3 of 9"x9" @ 1:6400	9 – 9" x 9"
	3 of each 9"x8" overlapping image @ 1:3600	Every 3 months

4.2.7.2 All photography must be made with a single lens precision aerial mapping camera equipped with a "high-resolution, distortion-free type lens," calibrated by the National Bureau of Standards.

4.2.8 Government Approvals and Permits.

4.2.8.1 Contractor must obtain all necessary permits for the Work and pay all applicable fees, unless otherwise noted on the Plans and in the Specifications. City permit fees will be paid internally by City. For bidding purposes, an allowance for all permit fees is included in the bid schedule under the item "allowance for permit fees." The Contractor will be paid for the actual cost of the permit fees upon submitting a receipt showing the fee Contractor has paid. Excluded from the above allowance are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, cost for all shut downs or outages, cost for pole bracing, cost of permits for construction water, cost of construction water, cost for any additional insurance requirements, cost for any licenses, and other similar type costs. Contractor is specifically notified of the need to obtain the necessary environmental permits or file the necessary environmental and regulatory permit notices.

4.2.8.2 Copies of all permits and the associated notices must be provided to City prior to starting the permitted activity.

4.3 PRE-CONSTRUCTION CONFERENCE

4.3.1 Prior to the commencement of any Work, City will schedule a Pre-Construction Conference.

4.3.2 The purpose of this Conference is to establish a working relationship between Contractor, the utility firms, and various City agencies. The agenda will include critical elements of the

Work schedule, submittal schedule, cost breakdown of major lump sum items, Payment Requests and processing, coordination with the involved utility firms, and emergency telephone numbers for all representatives involved in the course of construction.

4.3.3 Minimum attendance by Contractor at any mandatory meeting with City must be (1) Contractor's Representative, who is authorized to execute and sign documents on behalf of the firm, (2) Contractor's on-site Superintendent, and (3) Contractor's Safety Office, or other employee responsible for safety.

4.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

4.4.1 Unless otherwise provided in the Contract Documents to be the responsibility of City or a separate Contractor, Contractor must provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Contractor to complete the Work consistent with the Contract Documents.

4.4.2 Contractor must perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Contractor must at all times exercise complete and exclusive control over the means, methods, safety, sequences and techniques of construction.

4.4.3 Contractor's Superintendent must be present at the Site at all times that material Work under this Contract is taking place. Contractor's Superintendent or designee must be present at the Site at all times any other Work under this Contract is taking place. Superintendent must not be replaced without written notice to City. Whenever the Superintendent is not present at a particular part of the Work where the City or Design Professional may desire to inform the Contractor relative to interpretation of the Drawings and Specifications or to disapproval or rejection of materials or Work performed, the City or Design Professional may provide such information in writing to the foreman or other worker in charge of the particular part of the Work in reference to which the information is given. Information so given will be as binding as if given to the Superintendent.

4.4.4 All elements of the Work must be under the direct supervision of a foreman or his designated representative on the Site who must have the authority to take actions required to properly carry out that particular element of the Work.

4.4.5 Working Hours. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated, all Work at the Site must 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 City's written consent given after prior written notice to City. If it will become absolutely necessary to perform Work at night or on Saturdays, Sundays or legal holidays, the City must be informed at least 24 hours in advance of the beginning of performance of such Work. Only such Work will be done at night as can be done satisfactorily as determined by the City. Good lighting and all other necessary facilities for carrying out and inspecting the Work must be provided and maintained at all points where such Work is being done. Further, unless such non-normal work hours are performed at City's request or required by the Contract Documents, Contractor must pay to City all additional costs incurred by City by reason of such non-normal working hours. Expenses incurred by City for overtime compensation must be reimbursed by Contractor as follows: (i) City staff at the rate set forth

in current City Fee Schedule as published on City website, (ii) Design Professional and staff at the standard hourly rates previously negotiated with City, and (iii) all others at actual cost plus ten percent administrative overhead. Such costs may be deducted by City from any payments due to Contractor. Provided, however, if overtime work or work during other than normal hours is at the request of City and not due to Contractor delay, City will pay the cost of City overtime expenses.

4.4.6 Where the Contract Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is Contractor's responsibility to ensure the Subcontractor employed for such work is approved by the manufacturer. All materials and equipment must be stored, applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to impose on City of Design Professional responsibility for the means, methods, techniques, sequences or procedures of construction or for safety precautions incident thereto.

4.4.7 Before starting the Work, Contractor must carefully study and compare the various Plans, Drawings, other Contract Documents, and Specifications relative to that portion of the Work, as well as the information furnished by City, must take field measurements of any existing conditions related to that portion of the Work and must observe any conditions at the Site affecting it. The exactness of grades, elevations, dimensions, or locations given on any Drawings, or the Work installed by other contractors, is not guaranteed by City.

4.4.8 Before ordering materials or doing Work, Contractor and each Subcontractor must verify measurements at the Site and will be responsible for the correctness of such measurements. No extra charge or compensation will be allowed because of differences between actual dimensions and the dimensions indicated on the Contract Documents, including the Drawings.

4.4.9 Ground Level Construction Photography.

4.4.9.1 The Contractor must furnish progress photographs of the project. The photographer selected by the Contractor must be approved by the City and must be either a commercial photographer or an individual experienced and equipped for such photography.

4.4.9.2 The Contractor must deliver to City all photographs taken during that period with each application for payment. If the current photographs do not accompany the application, the application will not be reviewed and will be returned to the Contractor as incomplete.

4.4.9.3 Photographs must be identified by use of typewritten labels affixed to the back of the photograph. The label must provide a description of the view, the direction from which the photograph was taken, the name of the project, City's project number, the name of Contractor and the date of the photography. The stationing must also be included for all pipeline installations.

4.4.9.4 Photographs must be taken during the construction period and must be of aesthetic composition and depict the progress of the Work from the beginning of construction through and including the finished product. City may vary the specified frequency so that significant progress or changes can be recorded on the photographs.

4.4.10 Underground Facilities.

4.4.10.1 The existence and number of facilities as shown on the Plans are estimated from information furnished by the particular utility. Contractor is responsible for field verification and location of all utilities prior to the start of construction. No field work will be allowed to start until Contractor has contacted Arizona 811 and all affected utilities have been located. In addition Contractor must expose and physically locate all potentially conflicting utilities prior to construction. The actual locations of the utilities must be compared to locations shown on the Plans and any required changes in alignment and grade must be made at the time of construction in consultation with Project Manager. It is generally recognized and Contractor should anticipate that information from Arizona 811 or information from utility companies during project design, frequently fails to disclose all underground facilities. The fact that more utility lines or other underground facilities are located in the Project Site than shown on the Project Plans does not constitute an "unforeseen Condition" and such undisclosed underground facilities do not differ materially from the conditions which Contractor should expect. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction apply and are incorporated herein by this reference.

4.4.10.2 Contractor is responsible for all coordination with utility companies. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction strictly apply and no additional compensation will be paid to Contractor for delays due to utility work on the project.

4.4.11 Relocation of Existing Water Meters. When a service line has been extended and a line setter installed in a meter box, City forces will re-install meter. No compression fittings will be utilized.

4.4.12 Water Turn-On or Turn-Off.

4.4.12.1 Contractor must coordinate all water line turn-ons and turn-offs through the City. Application must be made to the Municipal Utility Division and Contractor must pay the established charges. The City will close existing valves, but will not guarantee a bone-dry Shutdown.

4.4.12.2 Contractor must notify all customers affected by the turn-off not less than 48 hours in advance. Notification must be in writing, must give the reason for the turn-off and must give the estimated time and duration that water service will be interrupted. Contractor is also notified that water turn-off will not be permitted on the Day before and after Thanksgiving Day and Christmas Day.

4.4.12.3 No direct payment will be made to Contractor for turn-ons or turn-offs. Costs associated therewith will be included in other items for which direct payment is made.

4.4.13 Tests and Inspections.

4.4.13.1 Contractor must give City timely (at a minimum, twenty-four hours) notice of readiness of the Work for all required inspections, tests or approvals. Contractor must give timely notice to City in advance of backfilling or otherwise covering any part of the Work so that city representative may, if desired, observe such part of the Work before it is concealed. Whenever Contractor varies the normal period during which Work or any portion of it is carried on each Day, Contractor must give timely notice to City so that city representative may, if desired, be present to observe the Work in progress. If Contractor fails to give such timely notice, any Work done in the absence of city representative will be subject to

rejection. If Contractor gives such notice to City, but then is not ready for such inspections, tests, approvals or observations at the time so noticed, Contractor must reimburse City for all costs incurred by the attendance of city representatives.

4.4.13.2 If any law, ordinance, rule, regulation, code, or orders of any public body having jurisdiction requires any Work (or part thereof) to be inspected, tested or approved, Contractor (unless another party is specified in the Contract Documents) must assume full responsibility therefor, pay all costs in connection therewith and furnish City the required certificates of inspection, testing, or approval. Contractor must also be responsible for and must pay all costs in connection with any inspection or testing required by the Specifications in connection with City's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Contract Documents will be paid by City (unless otherwise specified).

4.4.13.3 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction must be performed by organizations acceptable to City and by the Design Professional if so specified.

4.4.13.4 Neither observations by City, the Design Professional nor inspections, tests or approvals by others will relieve Contractor from their obligations to perform the Work in accordance with the Contract Documents.

4.4.14 Uncovering Work. If any Work that is to be observed, inspected, tested or approved is covered without written concurrence of City, it must, if requested by City be uncovered for observation. Unless Contractor has given City timely notice of Contractor's intention to cover such Work and City has not acted with reasonable promptness in response to such notice, Contractor must furnish all necessary labor, material and bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order will be issued.

4.4.15 In all cases of interconnection of its Work with existing or other Work, Contractor must verify at the Site all dimensions relating to such existing or other Work. Any errors due to Contractor's failure to so verify all such grades, elevations, locations or dimensions must be promptly rectified by Contractor without any increase in the Contract Price. Any design errors or omissions noted by Contractor during this review must be reported promptly to City.

4.4.16 Contractor must establish and maintain all construction grades, lines, levels, and benchmarks, and will be responsible for accuracy and protection of same. This Work must be performed or supervised by a licensed civil engineer or surveyor in the State of Arizona.

4.4.17 Contractor must photograph all buried piping of greater than four (4) inches in diameter prior to backfill.

4.4.18 Contractor is responsible for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between City and any Subcontractor or Sub-Subcontractor, including but not limited to any

third-party beneficiary rights.

4.4.19 Contractor must coordinate the activities of all Subcontractors. Contractor must coordinate performance of the Work with City's Public Works & Utilities Department and other departments or agencies within City. The Design Professional and other contractors or parties involved in the Project. If City performs other work on the Project or at the Site with separate contractors under City's control, Contractor agrees to cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

4.4.20 Contractor will not substitute or change any Subcontractor or Supplier without the prior written approval of City. Any substitute or replacement Subcontractor or Supplier must be required to meet the same qualifications and selection criteria and process as the original Subcontractor or Supplier. If a Subcontract/Supplier selection plan has been approved by City, Contractor will follow that plan unless otherwise approved by City in writing.

4.4.21 Contractor must not change or replace any members of its Project team, including Contractor's Representative, Project Manager, or Superintendent, without an explanation for the change being given to City, and receiving prior written approval of the change from City, which approval will not be unreasonably withheld.

4.4.22 Subcontractors whose scope of work has a value greater than 15% of the total Contract Price are required to furnish performance and payment bonds to Contractor, unless otherwise approved in writing by City.

4.4.23 Contractor must comply with MAG Specification § 108.2 (E) unless otherwise specified in Contract Documents.

4.5 CONTROL OF THE PROJECT SITE

4.5.1 Throughout all phases of construction, including suspension of Work, Contractor must keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Prior to Final Acceptance of the Work, or a portion of the Work, Contractor must remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit City to occupy the Project or a portion of the Project for its intended use.

4.5.2 Contractor must take whatever steps, procedures or means necessary to prevent dust nuisance due to construction operations. The dust control measures must be maintained at all times to the satisfaction of City and in accordance with the requirements of the Maricopa County Bureau of Air Pollution Control Rules and Regulations.

4.5.3 Contractor must maintain Americans with Disabilities Act (ADA) and American National Standards Institute (ANSI) accessibility requirements during construction activities, including without limitation compliance with the 2010 regulations governing implementation of the ADA to the extent applicable. ADA and ANSI accessibility requirements must include, but not be limited to, parking, building access, areas of refuge, and emergency exit paths of travel. Contractor is responsible for the coordination of all Work to minimize disruption to residents and the public.

4.5.4 Only materials and equipment used directly in the Work will be brought to and stored on the Site by Contractor. When equipment is no longer required for Work, it must be removed promptly from the Site. Protection of construction materials and equipment stored at the Site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

4.5.5 Contractor agrees all persons working on the Site must act at all times in the best interest of the Project and will comply with all applicable rules and regulations reasonably set forth by City related to the Site. Notwithstanding the foregoing or anything in this Agreement to the contrary, City may remove from the Site any individual who City deems in their reasonable discretion to be creating a disturbance or causing any problem on the Site.

4.5.6 Contractor will be responsible to City for the acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and any other person performing any of the Work under a Contract with Contractor, or claiming by, through or under Contractor, for all damages, losses, costs and expenses resulting from such acts or omissions.

4.5.7 City may conduct criminal, drive history, and all other requested background checks of Contractor and Subcontractor personnel performing Work or who have access to City's information, data, or facilities in accordance with City's current background check policies, or the provisions of the Project Specific Conditions. Any officer, employee or agent that fails to background check must be replaced immediately.

4.5.8 City will have a final authority, based upon security reasons: (i) to determine when security clearance of Contractor's and Subcontractor's personnel is required; (ii) to determine the nature of the security clearance, up to and including fingerprinting personnel; and (iii) to determine whether or not any individual or entity may provide Services or perform Work under the Contract.

4.5.9 If City objects to any personnel for any reasonable cause, then Contractor must, upon notice from City, remove such individual from the Project.

4.6 **PROJECT SAFETY**

4.6.1 The Project and all Work performed in relation thereto is governed by applicable provisions of the federal laws, including but not limited to, the latest amendments of the following:

a. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law, 91-596.

b. Part 1910 and Part 1926 – Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

c. Part 1518 – Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

4.6.2 Contractor is responsible for safety of the job Site for employees of Contractor as well as for members of the general public and others who may drive or walk through or be at the Site.

4.6.3 Contractor recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to: (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work and stored On-Site or Off-Site; and (iii) all other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for

removal, relocation or replacement in the course of construction; and (iv) the owners or tenants of adjacent property and their patrons, employees and invitees.

4.6.4 Contractor assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work.

4.6.5 Contractor must provide a "competent person' as required by O.S.H.A regulations. The "competent person" must be identified at the Pre-Construction Conference with City advised in writing of any changes.

4.6.6 The "competent person" must make routine daily inspections of the Site and must hold weekly safety meetings with Contractor's personnel, Subcontractors and others as applicable.

4.6.7 Contractor and Subcontractors must comply with all legal and regulatory requirements relating to safety, as well as any City specific safety requirements set forth in the Contract Documents, provided that such City-specific requirements do not violate any applicable legal and regulatory requirements.

4.6.8 Contractor will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Project Manager and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

4.6.9 Contractor's responsibility for safety under this Section is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

4.6.10 As between City and Contractor, Contractor is responsible to City for any and all the safety issues relating to the Work on the Project. Contractor must administer and manage the safety program. This will include, but not necessarily be limited to review of the safety programs of each Subcontractor. Contractor must monitor the establishment and execution of compliance with all applicable regulatory and advisory agency construction safety standards. Contractor's responsibility for review, monitoring, and coordination of the Subcontractor's safety programs will not extend to direct control over execution of the Subcontractors' safety programs. Notwithstanding Contractor's safety obligations to City, it is agreed and understood that each individual Subcontractor will remain controlling employer responsible for the safety programs and precautions applicable to its own work and the activities of other's work in areas designated to be controlled by such Subcontractor for purposes of workers compensation insurance coverage.

4.6.11 Nothing in this agreement will relieve Contractor of his responsibility to maintain traffic, structures, etc., as noted on the Plans, Specifications, and Project Specific Conditions. Contractor is responsible to provide all necessary shoring, bracing and trench support as is necessary to maintain traffic structures, etc., as stipulated in the Plans, Specifications, and Special Provisions. If the stability of adjoining building, walls, roadways, etc., is endangered by Contractor's excavation, shoring, bracing, or under pinning must be provided as necessary to ensure project safety. Cost for shoring, bracing, underpinnings, and trench support will be included in the appropriate items listed in the Contract Price, and no

additional payment will be made for this work.

4.7 MATERIALS QUALITY, SUBSTITUTIONS, AND SHOP DRAWINGS

4.7.1 Quality Control and Quality Assurance Testing.

4.7.1.1 All construction materials to be used or incorporated in the Project are subject to inspection, Quality Control & Quality Assurance Testing, and approval or rejection by City. Any material rejected by City must be removed immediately and replaced in an acceptable manner to City at no additional cost to City. When QC/QA tests indicate noncompliance with the Contract Documents, retesting must be performed by the same testing laboratory that performed the tests that indicated noncompliance.

4.7.1.2 The Contractor must establish, provide, and maintain an effective Quality Control Testing Program (QCTP). The Contractor must develop his own program or procure the services of a consultant. In either case, the party performing the tests must be currently certified by the National Bureau of Standards in the National Voluntary Laboratory Accreditation Program (NVLAP) for construction services or the AASHTO Accreditation Plan (AAP) for Soils, Asphalt and Concrete. The Contractor must provide all support necessary to perform QC and QA testing and sampling (i.e. shoring for testing trench backfill, backhoes, motor graders, loaders, etc. to facilitate testing and sampling). The City will perform the QA testing.

4.7.1.3 The Contractor must submit a written QCTP to the City as a required submittal. The Contractor must not begin Work until the Quality Control Program has been reviewed and accepted by the City. Resumes of all personnel that will be associated directly or indirectly with the QCTP must be included.

4.7.1.4 The QCTP must include, but not be limited to, on-site/field and laboratory testing of all material delivered to the Site and any existing materials or conditions pertinent to the project.

4.7.1.5 All testing must be under the direction of a Professional Engineer registered in the State of Arizona, knowledgeable in Materials Testing. All "Test Report" forms must be stamped by said Engineer.

4.7.1.6 The written QCTP will set forth the responsibilities of the engineer, project manager, supervisory personnel and each technician assigned to this project. Substitutions or replacement of personnel must require prior written approval by the City. All personnel must be proficient within their assigned duties and possess certification(s) commensurate with their position and responsibilities. The minimum certification(s) for each technician must be NICET Level II, Arizona Technical Testing Institute, American Concrete Institute, or other nationally recognized program applicable to the project and approved by the City of Chandler. The written QCTP must include a description of the required field and construction materials laboratory tests, including required frequencies that meet the minimums established herein.

4.7.1.7 The Contractor must establish a system to record and report all material test results. The daily test reports must include, but not be limited to:

a. Test designation;

b. Date of test;

c. Name of tester;

d. Location of test/sample (station and offset);

e. Product suppliers and product codes (as applicable);

f. Depth/elevation of test/sample;

g. Test result;

h. Control requirement(s);

i. Cause of rejection (if applicable);

j. Results of retests (if applicable); and

k. Remedial action (if applicable).

4.7.1.8 The Contractor must submit test results to the designated City representative.

4.7.1.9 The Contractor must also submit a weekly report to the City summarizing the testing and construction activities completed by emailing the report to the email addresses noted above. All weekly reports must be submitted simultaneously to the Contractor and the City of Chandler. The report must include individual summary sheets for each utility line, structure, and portion of the pavement section. Cores must be numbered sequentially throughout the Project. Re-cores must reference the original core by number and must contain the averaged values for thickness and density. Total pavement thickness must be reported**.** Vertical location of tests for underground utilities must indicate the depth of the excavation at the location of the test (i.e., cut to flow line [if applicable], depth to bottom or top of pipe, etc.). Density tests must be numbered sequentially. If the minimum number of tests has not been performed per the written QCTP, this must be stated in the weekly summary report with an explanation of the circumstances.

4.7.1.10 The City will maintain a copy of the Project test results and weekly reports in the Project file. In cases where quality control activities do not comply with the contract provisions, the City may:

a. Order the Contractor to replace ineffective or unqualified quality control personnel.

b. Order the Contractor to stop operations until appropriate corrective action is taken.

4.7.1.11 Although minimum testing requirements are specified herein, the Contractor bears full responsibility for the quality of the materials and their installation and may elect to perform additional testing beyond the requirements set forth herein to ensure compliance.

4.7.1.12 The Quality Control requirements contained in this Section are in addition to and separate from Quality Assurance Testing, which will be performed by the City of Chandler or its representative. If the Quality Assurance test results are not in agreement with the Quality Control test results, the Contractor will have the option to retain a third party consultant for referee tests. The third party consultant must meet the same requirements as the consultant performing the Quality Control Testing. The results of the third party will be binding. All cost incurred by the referee testing will be the Contractor's expense. If the Contractor elects not to retain a third party for referee testing, the City of Chandler test results will prevail.

4.7.1.13 Except as otherwise noted within this Section, Work or materials required by this Section are

non- pay items. Per MAG Section 101, a non-pay item is an item of Work for which no separate payment will be made, the cost of which is to be included as an incidental cost for associated item(s) included on the Bid Schedule or Schedule of Values.

4.7.2 Trade Names and Substitutions.

4.7.2.1 Substitutions prior to bid will only be considered if in compliance with Arizona Revised Statute § 34-104.

4.7.2.2 Contractor, if requested by City, must submit Samples or any additional information that may be necessary to evaluate the acceptability of the substitution.

4.7.2.3 City will make the final decision and will notify Contractor in writing as to whether the substitution has been accepted or rejected.

4.7.2.4 If City does not respond within 15 working days, Contractor must continue to perform the Work in accordance with the Contract Documents and the substitution will be considered rejected.

4.7.3 Shop Drawings.

4.7.3.1 Contractor must prepare and submit Shop Drawings which show details of all Work to insure proper installation of the Work using those materials and equipment specified under the approved Plans and Specifications.

4.7.3.2 Contractor must submit a schedule of Shop Drawing submissions, which avoids bulk submissions to the extent reasonably possible, with the Project Schedule for City approval. The schedule of Shop Drawing submissions must include all of the items for which Shop Drawings are required by the Contract Documents, including the Specifications. Unless otherwise noted, Shop Drawings will not be required for items specified or detailed in the Uniform Standard Specifications and Details or the Technical Specifications.

4.7.3.3 Shop Drawings must be numbered consecutively for each Specification section and must accurately and distinctly present the following:

a. All working and erection dimensions.

b. Arrangements and sectional views.

c. Necessary details, including complete information for making connections between work under this Contract and work under other Contracts.

d. Kinds of materials and finishes.

e. Parts list and description thereof.

4.7.3.4 Each Drawing or page must include:

a. Project Name, City of Chandler Project Number and descriptions.

b. Submittal date and space for revision dates.

c. Identification of equipment, product or material.

d. Name of Contractor and Subcontractor.

e. Name of Supplier and Manufacturer.

f. Relation to adjacent structure of material.

g. Physical dimensions clearly identified.

h. ASTM and Federal Specifications references.

i. Identification of and justification for deviations from the Contract Documents.

j. Contractor's stamp, initialed or signed, dated and certifying the review of submittal, certification of field measurements and compliance with Contract.

k. Location at which the equipment or materials are to be installed.

4.7.3.5 Location will mean both physical location and location relative to other connected or attached material. City will return unchecked any submittal, which does not contain complete data on the Work and full information on related matters.

4.7.3.6 Stock or standard drawings will not be accepted for review unless full identification and supplementary information is shown thereon in ink or typewritten form.

4.7.3.7 Contractor must schedule, prepare and submit all Shop Drawings in accordance with a time-table that will allow its suppliers and manufacturers sufficient time to fabricate, manufacture, inspect, test and deliver their respective products to the project Site in a timely manner so as to not delay the complete performance of the Work.

4.7.3.8 If the Shop Drawings show departures from the Contract requirements, Contractor must make specific mention thereof in the Letter of Transmittal; otherwise review of such submittals by City will not constitute review of the departure. Review of the Drawings will constitute review of the specific subject matter for which the Drawings were submitted and not of any other structure, material, equipment, or apparatus shown on the Drawings.

4.7.3.9 The review of Shop Drawings will be general and will not relieve Contractor of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the Work, nor for the furnishing of materials or Work required by the Contract. No construction called for by Shop Drawings will be initiated until such Drawings have been reviewed and approved by City.

4.7.3.10 The procedure in seeking review of the Shop Drawings will be as follows:

a. Contractor must submit complete sets of Shop Drawings and other descriptive data as specified in this Section.

b. After Contractor's submittal or resubmittal of Shop Drawings, if Contractor has submitted Shop Drawings in accordance with the City-approved submittal schedule, or upon resubmission, City will be provided with three (3) calendar weeks for review. Should City require additional review time above and beyond the three (3) calendar weeks, Contractor may ask for a time extension or monetary compensation, if they can present valid, factual evidence that actual damages were incurred by Contractor. City will determine the amount of the time extension or the monetary compensation to be awarded Contractor, if any, in accordance with City's Policy Statement for Calculating Delays and Damages, Appendix 1.

4.7.3.11 Contractor will be responsible for all extra costs incurred by City caused by Contractor's

failure to comply with the procedure outline above.

4.7.4 Long Lead Time Items. Contractor must submit Shop Drawings, as required by the Engineer, on all long lead items to be furnished and installed as part of the project within 10 Days after the date of the executed Contract letter issued by City. In addition, Contractor must order all long lead items to be furnished and installed as part of this Project within 3 Days after receiving approved Shop Drawings. For all long lead times for which Shop Drawings are not required, Contractor must order said long lead items within 15 Days after the date of the executed Contract letter issued by City. Within 2 Days after ordering long lead items, Contractor must supply copies of all purchase orders, along with an accurate delivery schedule from the supplier.

4.7.5 Construction Water. If Contractor uses water from City's water system for construction water, Contractor must obtain a fire hydrant meter from City of Chandler Utility Services (480-782-2280) and all construction water must be obtained through the hydrant meter. Contractor must pay all fees related to the hydrant meter and all water bills for construction water. All cost for meters and construction water will be included in the Contract Price.

4.8 PROJECT RECORD DOCUMENTS

4.8.1 During the construction period, Contractor must maintain at the jobsite a full-size set of prints of the Construction Document Drawings and Shop Drawings for Project Record Document purposes.

4.8.2 Contractor must mark these Drawings to indicate the actual installation where the installation varies from the original Construction Documents. Contractor must give particular attention to information on elements that will be concealed, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings.

b. Revisions to details shown on Drawings.

c. Locations and depths of underground utilities.

d. Revisions to routing of piping and conduits.

e. Actual equipment locations.

f. Changes made by Change Order or Addendum.

g. Details not on original Contract Drawings.

4.8.3 Contractor must mark completely and accurately Project Record Drawing sets of Construction Documents.

4.8.4 Contractor must mark Project Record Drawings sets with red erasable colored pencil.

4.8.5 Contractor must note Request for Information (RFI) Numbers and Change Order numbers, etc., as required to identify the source of the change to the Construction Documents.

4.8.6 Contractor must submit Project Record Drawing sets and Shop Drawings to City or its representative for review and comment.

4.8.7 Upon receipt of the reviewed Project Record Drawings from City, Contractor must correct any deficiencies and omissions to the Drawings and submit the final original of the Project

Record Drawings to City prior to Final Payment.

4.8.8 Project Manager will review the Project Record Drawings monthly prior to the date established for the Payment Request and will be the sole judge of acceptance of these Drawings.

4.9 **WARRANTY AND CORRECTION OF DEFECTIVE WORK**

4.9.1 Contractor warrants to City that the construction, including all materials and equipment furnished as part of the Work, will be new unless otherwise specified in the Contract Documents, of good quality, and free of defects in materials and workmanship. Contractor's warranty obligation excludes defects caused by abuse, alterations, or unreasonable failure to maintain the construction by persons other than Contractor, subcontractors, or others under Contractor's control. Nothing in this warranty will limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein or in the Contract. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the Work. Contractor's warranty must be for one (1) year, in accordance with MAG Specification § 108.8, and will commence for all portions of the Work upon Final Acceptance of the entire Work as determined by City under the Contract. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

4.9.2 City May Stop the Work. If the Work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, City may order Contractor to stop the Work without cost to City, or any portion thereof, until the cause for such order has been eliminated; however, this right of City to stop the Work will not give rise to any duty on the part of City to exercise this right for the benefit of Contractor or any other party.

4.9.3 Correction or Removal of Defective Work.

4.9.3.1 If required by City, Contractor must promptly, without cost to City and as specified by City, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by City, remove it from the Site and replace it with non-defective Work. Contractor must correct any Work which may be displaced in correcting, removing or replacing defective Work. No compensation will be allowed Contractor for such removal, replacement or remedial Work. Contractor must reimburse City for costs incurred by City due to such correction or removal including but not limited to additional expenses for inspection, testing or observation and for repeated reviews by the City or Design Professional.

4.9.3.2 Upon failure on the part of the Contractor to comply within a reasonably prompt time with any written order of City to correct or remove defective Work, City has authority to cause nonconforming materials or rejected Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.4 City May Correct Defective Work. If Contractor fails within a reasonable time after written notice of City to proceed to correct defective Work or to remove and replace rejected Work as required by City or if Contractor fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), City may, after 7 Days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, City may exclude Contractor from 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 City has paid Contractor, but which are stored elsewhere. Contractor must allow City, city representatives, agents and employees such access to the Site as may be necessary to enable City to exercise City's rights under this Section. All direct and indirect costs of City in exercising such rights will be charged against Contractor in an amount verified by City representative, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs will include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of Work or others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor will not be allowed an extension of the Contract Time because of any delay in Contractor's performance of the Work attributable to the exercise by City or City's rights hereunder.

4.9.5 Correction or Removal of Unauthorized Work.

4.9.5.1 Any Work done beyond the lines and grades shown on the Drawings or established by the Design Professional or any changes in, additions to, or deductions from the Work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.

4.9.5.2 Upon failure on the part of the Contractor to comply promptly with any order of the City, City will have authority to cause unauthorized Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.6 Correction Period - One Year Guarantee.

4.9.6.1 If, within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by law 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, Contractor must promptly, without cost to City and in accordance with City's written instructions, either correct such defective Work, or, if it has been rejected by City, remove it from the Site and replace it with non-defective Work. 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, City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, must be paid by Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Contract Documents.

4.9.6.2 If, in the opinion of the City, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operation of the City, the City will attempt to give the notice required by this Section. If the Contractor cannot be contacted or does not comply with the City's request for correction within a reasonable time as determined by the City, the City may, notwithstanding the provisions of this Section, proceed to make such correction or provide such attention; and the costs of such correction or attention will be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees

required by this Section or elsewhere in the Contract Documents.

4.9.6.3 This Section does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as co-guarantor with such manufacturer or supplier and must furnish the City all appropriate guarantee or warranty certificates upon completion of the Project. No guarantee period, whether provided for in this Section or elsewhere, will in any way limit the liability of Contractor or their sureties or insurers under the indemnity or insurance provisions of these General Conditions and the Project Specific Special Conditions.

4.9.7 Acceptance of Defective Work.

4.9.7.1 If, instead of requiring correction or removal and replacement of defective Work, City may accept Work when in the best interest of the City to do so with appropriate monetary credit from Contractor. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after final payment, an appropriate amount must be paid by Contractor to City.

4.9.7.2 Alternatively, City may require Contractor to furnish at Contractor's expense, a special performance guarantee or other surety prior to acceptance of defective work.

4.9.8 The Warranty period begins on the Final Acceptance date noted in the Certificate of Completion, irrespective of early completion by some Subcontractors of their work.

4.9.9 Contractor's warranty obligation must be in accordance with MAG Specifications.

4.9.10 Nothing in the warranties contained in the Contract Documents are intended to limit any manufacturer's warranty which provides City with greater warranty rights than set forth in this Section or the Contract Documents. Contractor must provide City with all manufacturers' warranties prior to Substantial Completion, if applicable, or Final Acceptance.

4.9.11 Contractor agrees that it will be responsible to manage and administer the correction of any Work that is not in conformance with the Contract Documents during the warranty periods set forth in this Section, or during any longer periods to the extent required by the Contract Documents. A progress payment, or partial or entire use or occupancy of the Project by City, will not constitute acceptance of Work not in accordance with the Contract Documents.

4.9.12 When notified of a warranty issue, Contractor must respond in writing within 48-hours and must perform warranty Work as soon as material for said repairs are available (as judged solely by City), and in any event Contractor must, take immediate steps to commence and complete correction of nonconforming Work no later than the time period set forth in City's written notification in accordance with the Contract Documents. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If defects develop which are determined by City to be an emergency, City will notify Contractor, via the most expeditious means regarding the nature and condition of the defects. In turn, Contractor must immediately dispatch necessary forces to correct the defect or the emergency condition in accordance with Contract Documents.

4.9.13 The time periods referenced in this Section apply only to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies that City may have regarding Contractor's other obligations under the Contract Documents.

4.9.14 Without limiting the foregoing or anything in these General Conditions or the Contract to the contrary, Contractor must obtain and provide to City all warranties for any portion of the Project offered by the manufacturer, installer or provider thereof. City and the user of the facility will have the right to the full value and benefit of all such warranties. Contractor must ensure all such warranties are fully transferrable to facilitate the full value of this Section.

4.9.15 Contractor's warranty excludes damages or defects caused by abuse, alterations to the Work not executed by or through Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

4.9.16 In the event of any noncompliance with this entire Section 4, City may require Contractor to stop or suspend the Work in whole or in part.

SECTION 5 - CITY RESPONSIBILITIES

5.1 CITY PROJECT MANAGER AND INSPECTORS

5.1.1 Project Manager is responsible for providing City-supplied information and approvals in a timely manner to assist Contractor to fulfill its obligations under the Contract Documents.

5.1.2 Project Manager will also provide Contractor with prompt notice when it observes any failure on the part of Contractor to fulfill its contractual obligations, including any default or defect in the Project or non-conformance with the Drawings and Specifications.

5.1.3 City may utilize Field Inspectors to assist Project Manager during construction in observing performance of Contractor. City's use of Inspectors is for the purpose of assisting Project Manager.

5.1.4 The Inspectors are authorized to inspect all Work and materials furnished. Such inspections may extend to all or part of the Work and to preparation, fabrication or manufacture of the materials to be used. The Inspectors have the authority to issue instructions contrary to the Construction Documents if approved and coordinated with the directions of Project Manager.

5.1.5 The Inspectors have the authority to reject work or materials until any questions at issue can be decided by Project Manager.

5.1.6 The use of Inspectors by City will not make City responsible for or give City control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs or responsibility for Contractor's failure to perform the Work in accordance with Contract Documents. The Inspectors are not authorized to direct any of Contractor's activities, employees or Subcontractors.

5.2 DESIGN PROFESSIONAL SERVICES

City may contract separately with one or more Design Professionals to provide construction administration of the Project. The Design Professional's Contract, as well as

other firms hired by City may be furnished to Contractor. Contractor does not have the right to limit or restrict or reject any Contract modifications that are mutually acceptable to City and Design Professional.

5.3 **CITY'S SEPARATE CONTRACTORS**

City is responsible for all work performed on the Project or at the Site by separate contractors retained by City. City will contractually require its separate contractors to reasonably cooperate with, and reasonably coordinate their activities so as not to interfere with Contractor in order to enable Contractor to timely complete the Work consistent with the Contract Documents. Contractor must immediately notify the Project manager, and address the matter in the next monthly status report, if any activities of such separate contractors are expected to interfere, or are interfering, with Contractor and such interference will or could result in any delay in Contractor's performance of the Work.

5.4 **PERMIT REVIEW AND INSPECTIONS**

5.4.1 If requested by Contractor, Project Manager will provide assistance and guidance in obtaining necessary reviews, permits and inspections.

5.4.2 The regulating agencies of City, such as Development and Sustainability, Fire and Planning Departments, enforce legal requirements. The enforcement activities of City are independent and separate from this Agreement.

5.5 **PLANS AND SPECIFICATIONS TO THE CONTRACTOR**.

Contractor will be provided up to five copies of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

SECTION 6 - CONTRACT TIME

6.1 **CONTRACT TIME**

6.1.1 The Contract Time will start with the Notice to Proceed ("NTP") and end with Final Acceptance.

6.1.2 Beginning on the date of the NTP, Contractor must begin to fulfill Contractor's obligations under the Contract. Contractor's obligations include providing City and other agencies with any submittals required by the Project Specific Special Provisions, including but not limited to, an approved Project Schedule, Traffic Control Plans, and a Stormwater Pollution Prevention Plan. Contractor must submit all such required submittals before any physical construction work commences on the Site. NTP does not authorize construction work until all contract insurance, bonds, and schedules are submitted to and accepted by the City.

6.1.3 The Contract Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through both Substantial Completion and Final Acceptance within the Contract Time.

6.1.4 Time is of the essence of this Contract, for the Project, for the Work, and for each phase and designated Milestone thereof.

6.1.5 Failure of Contractor to perform any covenant or condition contained in the Contract

Documents within the time periods specified herein, will constitute a material breach of this Contract entitling City to terminate the Contract unless Contractor applies for and receives an extension of time, in accordance with the procedures set forth in the Contract Documents.

6.1.6 Failure of City to insist upon the performance of any covenant or condition within the time periods specified herein, will not constitute a waiver of Contractor's duty to perform every other covenant or condition within the designated periods, unless a specific waiver is granted in writing for each such covenant or condition.

6.1.7 City's agreement to waive a specific time provision or to extend the time for performance will not constitute a waiver of any other time provisions contained in the Contract Documents. Failure of Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement constitutes a material breach of this Contract entitling City to all the remedies set forth herein or provided by law.

6.2 **PROJECT SCHEDULE**

6.2.1 The Project Schedule must be in Microsoft Project standard file format, must be updated and maintained throughout the Contract Time, and must contain the following:

6.2.1.1 Detailed representation of all activities for the project, both on-site construction and major procurement. All significant activities together with the resource loading requirements for each and all items appearing on the schedule of values or bid schedule for progress payments must be shown on the Project Schedule or in attached transmittal letter as described in Section 6.2.8.

6.2.1.2 Dependencies between activities must be indicated so that it may establish as to the effect the progress of any one activity would have on other activities and on the Schedule.

6.2.1.3 Activities for submission, review, and approval of all required submittals.

6.2.1.4 An amount of time will be established prior to the final completion date for "punch list and cleanup". No other activities will be scheduled during this period. Punch list and cleanup must be shown on the Project Schedule and must be entirely completed prior to the expiration of the Contract Time.

6.2.2 Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review. City's review of and response to the Project Schedule is for the purpose of: (1) City planning and staffing for the Project as may be required from time to time; (2) ensuring Contractor's general conformance with the scheduling requirements of the Contract Documents and completion of the Project within the Contract Time; and (3) monitoring and evaluating the construction status for purposes of approving monthly progress payments. Acceptance of a submitted schedule by City should in no way be construed as an affirmation or admission that the schedule is reasonable or workable by Contractor. The responsibility for completing the Work on the Project within the Contract Time remains the obligation of Contractor. City's review does not relieve Contractor from compliance with the requirements of the Contract Documents or be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the work.

6.2.3 The Project Schedule must show milestones, including milestones for City-furnished information, and must include activities for City-furnished material and construction by other contractors when those activities are interrelated with Contractor activities.

6.2.4 The Project Schedule must be revised as required by conditions and progress of the Work, but such revisions do not relieve Contractor of its obligations to complete the Work within the Contract Time, as adjusted in accordance with the Contract Documents. No modification to the Contract Documents or the Contract Time will be effective unless approved in advance by City.

6.2.5 For all items of materials and equipment that are critical or may require long lead times to acquire, the Project Schedule must show dates for submission, review and approval of submittals, ordering, and delivery.

6.2.6 An updated Project Schedule must be submitted monthly to City as part of the Payment Request. The monthly submittal must include one full size plot of the entire schedule and one electronic copy containing the schedule in Microsoft Project standard file format. In addition, Contractor must, upon request by City, provide a copy of all submitted schedule data in electronic format which must be clearly labeled with the Project description, scheduling program name and version number, and schedule print/data date.

6.2.7 Contractor must provide City with a monthly status report with each Project Schedule detailing the progress of the Work, including: (i) if the Work is proceeding according to schedule, (ii) any discrepancies, conflicts, or ambiguities found to exist in the Contract Documents that require resolution, and (iii) other information detailing items that require resolution so as not to jeopardize the ability to complete the Work in the Contract Time.

6.2.8 With each Project Schedule submittal, Contractor must include a transmittal letter including the following:

a. Description of problem tasks, referenced to field instructions or requests for information (RFI's), as appropriate.

b. Current and anticipated delays including:

(i) Cause of the delay.

(ii) Corrective action and schedule adjustments to correct the delay.

(iii) Known or potential impacts and their delay on other activities, milestones, and their impact on the Substantial Completion and Final Acceptance dates.

(iv) Changes in construction sequence.

c. Pending items and status thereof including but not limited to:

(i) Time Extension requests;

(ii) Substantial Completion date status;

(iii) Final Acceptance date status.

d. If ahead of schedule, the number of calendar Days ahead.

e. If behind schedule, the number of calendar Days behind.

f. Other Project or scheduling concerns.

6.2.9 Critical Path Method (CPM).

6.2.9.1 Unless otherwise specified in the Contract, the Project Schedule must include a Critical Path Method (CPM) diagram schedule showing the sequence of activities, the interdependence of each activity and identifies the Critical Path.

6.2.9.2 The CPM diagram schedule must be in calendar Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float Times for all activities except critical activities. The CPM diagram must be presented in a time scaled graphical format for the Project as a whole.

6.2.9.3 The CPM diagram schedule must indicate all relationships between activities.

6.2.9.4 The activities making the Project Schedule must contain sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluation the progress of the Work. Individual activities must not exceed 30 Days in length, in most cases.

6.2.9.5 The CPM diagram schedule must be based upon activities, which coincide with the Schedule of Values.

6.2.9.6 The CPM diagram schedule must show all submittals associated with each work activity and the review time for each submittal.

6.2.10 Float Time.

6.2.10.1 The total Float Time within the overall schedule is for the exclusive use of City, but City may approve Contractor's use of Float as needed to meet contract Milestones and the Project completion date.

6.2.10.2 Contractor will not be allowed to sequence, hide, or reallocate Float Time through such strategies, as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, tec. No time extensions will be granted nor delay damages paid until a delay occurs which extends the Work beyond the Contract Time.

6.2.11 City-Caused Delays. City-caused delays on the Project, if any, may be offset by City-caused time savings (i.e., Critical Path submittals returned in less time than allowed by the Contract, approval of substitution requests and credit changes which result in savings of time to Contractor, etc.) In such an event, Contractor will not be entitled to receive a time extension or delay damages until all City-caused time savings are exceeded and the Contract Time is also exceeded.

6.2.12 Rain-Related Delays. Contractor is required, in preparing the Project Schedule to take into account all relevant weather conditions, including normal rainfall and distribution. No additional compensation will be given for any rain-related delays or impacts on the Work or the Project Schedule. No time extension will be granted in the Project Schedule unless the rainfall during the construction of Work is unusually severe, was not reasonably anticipated, and the total rainfall was significantly in excess of the normal rainfall for the Project Site location. Normal rainfall for the Project will be determined from the 10-year average rainfall for the Site as measured by the National Oceanic and Atmospheric Administration or comparable source of reliable information for rainfall in Chandler, Arizona. In addition, the excessive rainfall must have actually impacted Work activities on

the Critical Path and caused delay beyond any remaining Float at the time of the rain- caused delay. The burden of documenting normal rainfall, the excessive rainfall and the impact on Critical Path activities is on Contractor. All other provisions in the Contract Documents relating to claims, including without limitation notice requirements, apply to any claim by Contractor for a rain delay.

6.2.13 City's "Policy Statement for Calculating Delays and Damages," Appendix 1 to these General Conditions, will apply to all claims of delay and delay damages.

6.2.14 Force Majeure. If Contractor is delayed or prevented from the performance of any Work required under this Contract by reason of acts of God or other causes beyond the control and without fault of Contractor (financial inability excepted), performance of that Work will be excused, but only for the period of the delay. The time for performance of the Work will be extended for a period equivalent to the period of delay.

6.3 **SUBSTANTIAL COMPLETION**

6.3.1 When Contractor considers that the Work, phase or a portion thereof, which City agrees in writing to accept separately, is substantially complete, City will prepare and submit to Contractor a comprehensive Punch List of items to be completed or corrected prior to Final Acceptance and Final Payment. Failure to include an item on such Punch List does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents.

6.3.2 Upon receipt of Contractor's Punch List, Project Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete. Project Manager may, at Project Manager's sole option, be assisted in such inspection by the Design Professional for the Project. If the inspection by the Project Manager discloses any item, whether or not included on Contractor's Punch List, which is not sufficiently completed in accordance with the Contract Documents so that City can occupy or utilize the Work, phase or designated portion thereof for its intended use, Contractor must, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by Project Manager. In such case, Contractor must then submit a request for another inspection by Project Manager to determine Substantial Completion.

6.3.3 Certificate of Substantial Completion.

6.3.3.1 The Project Manager will not issue a Certificate of Substantial Completion unless and until the Work (or separable units or Phases as provided in the Contract Documents) is essentially and satisfactorily complete in accordance with the Contract Documents, such that the Project is ready for use by City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full-operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories and similar elements are installed in the proper manner and in operating condition, inspected and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air condition, vertical transportation and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other Work as applicable, has

been performed to a similar state of essential and satisfactory completion. A minor amount of Work, as determined by and at the discretion of the Project Manager, such as installation of minor accessories or items, a minor amount of painting, minor replacement of defective work, minor adjustment of controls or sound systems, or completion or correction of minor exterior work that cannot be completed as a result of weather conditions, will not delay determination of Substantial Completion. If prior written approval is obtained from City for purposes of Substantial Completion, specified areas of the entire Work or Project may be individually certified as Substantially Complete. In no event will Substantial Completion be deemed to have occurred unless and until: (i) a temporary certificate of occupancy has been issued by the appropriate Governmental Authorities (as applicable) and (ii) all terms and Work required under this Agreement have been fulfilled by Contractor and same will have also been approved and accepted by City, subject only to the Punch List items.

6.3.3.2 If requested by City, Contractor must complete and turn-over to City the Project on a phased basis. Each phase will have a separate inspection by the Project Manager, a Punch List generated, and then an inspection by City with final approval and acceptance only after the Project Manager's Punch List.

6.4 PARTIAL UTILIZATION

6.4.1 City at City's option may use and occupy any substantially completed parts of the Work which has specifically been identified in the Contract Documents, or which City, the Design Professional and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose, without significant interference with Contractor's performance of the remainder of the Work, provided, however, if the portion of the Work to be used or occupied has not been found to be substantially complete, City must do so in accordance with Section 6.3 prior to such occupancy.

6.4.2 In lieu of the issuance of a Certificate of Substantial Completion as to part of the Work, City may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, City and Contractor agree in writing as to the division of responsibilities between City and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

6.4.3 Substantial Completion of or City's beneficial occupancy of a part of the Project will not alter the fact that the one-year warranty for the whole Project starts at the date of Final Completion of the whole Project.

6.5 FINAL ACCEPTANCE

6.5.1 Unless otherwise expressly agreed to in writing by City, Final Acceptance must be obtained by no later than 30 Days (60 Days for federally funded contracts) after the date of Substantial Completion. Failure to timely obtain Final Acceptance will be a material breach of the Contract.

6.5.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance, City and Contractor will jointly inspect to verify that the remaining items of Work have been completed. There will be no partial acceptance. Final Acceptance will not occur until all items of Work, including Punch List Items, have been completed to City's satisfaction as reflected in the written Final Acceptance.

6.5.3 Final Payment will not be due, owing, or paid by City until Final Acceptance is issued.

6.5.4 Landscape Establishment Period. Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will begin on the date of Final Acceptance of the Project and will run 90 Calendar Days thereafter. Landscape Establishment Period requirements are detailed in General Conditions Appendices, attached herein.

6.6 **CONTINUATION OF WORK**

6.6.1 Permitting Contractor to continue and finish the Work or any part of it after the time fixed for its completion (whether milestone, phase, Substantial Completion or Final Acceptance) or after the date to which the time fixed for any completion may have been extended, does not operate as a waiver by City of any rights under the Contract Documents, law or equity.

6.6.2 Furthermore, the timely completion of the Work being of the utmost importance under this Contract, notwithstanding the existence of one or more disputes between the parties concerning the scope of the Work, the Project Schedule, Contract Time, payments or any other matter, and further notwithstanding a party's invocation of the Dispute Resolution provisions specified in Appendix 6 of these General Conditions, unless City suspends the Contract or Contractor's performance pursuant to Section 10 of these General Conditions, Contractor will continue to prosecute the Work, including any Change Order work or Extra Work Orders, in a diligent and timely manner and not stop, slow down or impede by action or inaction the progress of the Work, including commencing performance of and thereafter completing any additional work called out in any Change Order or Extra Work Order issued by Project Manager with the approval of City, so long as City makes payment to Contractor in accordance with Section 8 of these General Conditions.

SECTION 7 - CONTRACT PRICE

7.1 **UNIT PRICE CONTRACTS**

7.1.1 The Contract Price for all Unit Price Contracts will be the amount set forth in the Contract or Change Order multiplied by the verified quantity provided.

7.1.2 Measurements of quantities to determine the total Contract Price must be in accordance with MAG Specification §§ 109.1 and 109.2.

7.1.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2 **CHANGE ORDERS**

7.2.1 Unit Price Change Orders. The Change Order Price for all Unit Price Change Orders will be the amount set forth in the Change Order multiplied by the verified quantity provided.

7.2.2 Measurements of quantities to determine the total Change Order Price must be in accordance with MAG Specifications §§ 109.1 and 109.2.

7.2.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2.4 MAG Specification § 109.4.1 is modified as follows: Before § 109.4.1, the following is added: Any deduction or increase in the Contract Price must be supported by a signed, written Change Order fully executed by City, and supported by such backup as the Project Manager may require. No adjustments in any Unit Prices will be allowed. Sections 109.4.1(A) and (B)

and 109.4.2(A) are deleted in their entirety.

7.3 **SALES TAX**

Contractor is required to pay all applicable sales tax in accordance with the law of the state of Arizona and this cost must be included in all Contract Prices. When equipment, materials or supplies generally taxable to Contractor are eligible for a tax exemption due to the nature of the Project, Contractor must assist City in applying for and obtaining such tax credits and exemptions which will be paid or credited to City.

SECTION 8 - PAYMENT

8.1 **PAYMENT FOR CONSTRUCTION SERVICES**

8.1.1 Payment for the Work will be made in accordance with MAG Standard Specification § 109 as amended below.

8.1.2 Contractor must submit to City for review a completed Contractor Payment Request signed by Contractor, covering the Work completed as of the date of the Request and accompanied by such supporting documentation as is required by the Contract Documents and also as City may reasonably require. A Contractor Payment Request will not be considered complete unless it is accompanied by an updated Project Schedule and a certification that the on-site, red lined, as built Drawings are up to date. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably, securely stored at the Site or at another location (such as a bonded warehouse) agreed to in writing, the Contractor Payment Request must also be accompanied by such data, satisfactory to City, as will establish City's title to the material and equipment and protect City's interest therein, including applicable insurance. Each subsequent Contractor Payment Request must include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Contractor Payment Requests.

8.1.3 The Contracting Agency will retain 10 percent of all estimates as a guarantee for complete performance of the Contract in accordance with Arizona Revised Statutes Section 34-221 or 34-607, unless the Contractor elects to deposit securities in accordance with Arizona Revised Statutes Section 34-221, Paragraph C.5. or 34-607, Paragraph B.5.

8.1.4 The payment process functions as follows: Prior to the payment cycle date, Contractor must send a draft Contractor Payment Request to Project Manager. The Project Team will review the Request and agree upon any necessary adjustments. Contractor must certify the final Request by signing and returning to Project Manager.

8.1.5 When construction of the Project is fifty percent (50%) completed, Contractor may request payment of one-half of the retention pursuant to A.R.S. § 34-609(B)(3), subject to all of City's rights to withhold or offset payments, and other rights of City, under the Contract.

8.1.6 City reserves the right under A.R.S. § 34-609(B)(3) to reinstate the ten percent (10%) retention if City determines that satisfactory progress is not being made.

8.1.7 Contractor's Warranty of Title.

8.1.7.1 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Contractor Payment Request, whether incorporated in the Project or not, will pass

to City at the time of payment, free and clear of all liens, claims, security interests, and encumbrances, provided that this will not preclude the Contractor from installing metering devices or other equipment of utility companies or municipalities, the title of which is commonly retained by the utility company or municipality.

8.1.7.2 No materials, supplies, or equipment for the Work under this Contract will be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein, or any part thereof, is retained by the seller or supplier.

8.1.7.3 Nothing contained in this Section will defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Section must be inserted in all subcontracts and material contracts, and notices of its provision must be given to all persons furnishing materials for the Work when no formal contract is entered into for such materials.

8.2 PAYMENT UPON SUBSTANTIAL COMPLETION

8.2.1 No payment will be made upon Substantial Completion, except for a regularly-scheduled monthly progress payment, as allowed by Section 8.2.2.

8.2.2 No further payments will be made to Contractor until Final Acceptance.

8.3 FINAL PAYMENT

8.3.1 Subject to all of City's rights to withhold or offset payment, and other rights under the Contract, Final Payment including remaining retainage will be paid only after:

a. Work has been fully completed (including completion of all incorrect or incomplete work items) and the written Final Acceptance has been issued by City;

b. Necessary operating manuals, any excess materials and supplies necessary for matching materials and supplies incorporated into the Work, acceptable sewer video results (if applicable), and complete "as-built" Drawings (including the Building Information Model, if required by the Contract Documents) have been delivered to City, as specified in this Section 8.4;

c. Full and unconditional lien waivers and releases by Contractor and any person performing labor or supplying material, machinery, fixtures, or tools for the Work have been delivered to Contractor;

d. All conditions and requirements imposed by City or any financing entity for the corresponding disbursement have been met; and

e. Contractor delivers to City a Contractor Payment Request requesting Final Payment.

8.3.2 Contractor must also submit a signed copy of Contractor's Affidavit Regarding Settlement of Claims, Appendix 3 to these General Conditions, and Certificate of Completion, Appendix 7 to these General Conditions, prior to Final Payment.

8.3.3 In addition, if required under the Project Specific Special Provisions, Contractor must compile a complete equipment list and maintenance manual to be submitted to City

as a precondition to Final Payment. The list must include the following items for all equipment supplied under the Plumbing, Electrical, Air Conditioning, Elevator, and other Special Equipment Specifications:

a. Name, Model and Manufacturer.

b. Complete parts lists and Drawings.

c. Local source of supply for replacement parts along with suppliers' telephone numbers.

d. Local service organizations serving the equipment and their telephone numbers.

e. All tags, inspection slips, instruction packages, etc., removed from equipment must be properly identified as to pieces of equipment from which they were taken.

8.3.4 Contractor must also deliver to City, prior to Final Payment, one (1) digital (in the format specified by City), and if requested by City, one (1) hard copy, of any applicable Maintenance manuals. Each manual must include all manufacturer's operation and maintenance instructions and "as-built" Drawings with the list herein specified. It must also include all other diagrams and instructions necessary to properly operate and maintain the equipment, the name, address and telephone number of Contractor and all Subcontractors involved.

8.4 **CITY'S RIGHT TO WITHHOLD PAYMENT**

City may withhold payment to such extent as may be necessary in City's opinion to protect City from loss for which Contractor is responsible, including, without limitation, if any of the following conditions exist:

a. Defective Work not remedied;

b. Third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to City is provided by Contractor;

c. Failure of Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

d. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

e. Damage to City or another Contractor;

f. Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

g. Failure to carry out the Work in accordance with the Contract Documents; or

h. Contractor is in default of any of its other obligations under the Contract Documents.

8.5 **JOINT/DIRECT CHECKS**

To promote the timely completion and progress of the Work or when appropriate and necessary, payments to Contractor may be made jointly to Contractor and its employees, agents, Subcontractors and suppliers, or any of them. .

8.6 **PAYMENT NOT A WAIVER**

No payment (nor use or occupancy of the Project by City) will be deemed acceptance or approval of the Work or as a waiver of any claims, rights, or remedies of City.

8.7 **LIENS AND BOND CLAIMS**

Contractor must make all payments, in the time required, of all labor and materials furnished to Contractor in the course of the Work and must promptly furnish evidence of such payments as City may require. Contractor must pay when due all claims arising out of performance of the Work covered by this Contract for which a lien may be filed either against the real estate or leasehold interest of City, or against payments due from City to Contractor, or for which a claim may be made against any payment or performance bond or both. To the fullest extent permitted by law, Contractor agrees that no liens or other claims in the nature of a lien against the real estate, leasehold, or other interest of City, against payment due from City to Contractor, or against any payment or performance bond, must be filed or made in connection with the Work by any party who has supplied professional services, labor, materials, machinery, fixtures, tools, or equipment used in or in connection with the performance of this Contract, and Contractor agrees to remove or to cause to be removed any such liens or claims in the nature of a lien or bond claim within 10 Days upon receiving notice or obtaining actual knowledge of the existence of such liens or claim. In addition, Contractor agrees to defend, indemnify, and hold harmless City from and against any and all such liens and claims. This paragraph does not apply to claims and liens of Contractor due to non-payment for work performed.

8.8 **FINANCIAL RECORDKEEPING AND CITY'S AUDIT RIGHT**

8.8.1 Records for all Contracts between City and Contractor must, upon reasonable notice, be open to inspection and subject to audit, scanning, and reproduction during normal business working hours. Such audits may be performed by any City's representative or any outside representative engaged by City for the purpose of examining such records. City or its designee may conduct such audits or inspections throughout the term of this Contract and for a period of five years after Final Payment or longer if required by law. City's representatives may (without limitation) conduct verifications such as counting employees at the Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Contractor employees, field and agency labor, Subcontractors, and vendors.

8.8.2 Contractor's "records" must include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in City's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Contract Document. Such records must include (hard copy, as well as computer readable data if it can be made available), written policies and procedures; time sheets; payroll registers; payroll records; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, negotiation notes, etc.); original bid estimates; estimating work sheets; correspondence; Change Order files (including documentation covering negotiated settlements); back-charge logs and supporting documentation; invoices and related payment documentation; general ledger, information detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of

interest to City or the Project in connection with Contractor's dealings with City or the Project (all foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of any or all of the following:

a. Compliance with Contract requirements for deliverables;

b. Compliance with approved Plans and Specifications;

c. Compliance with § 14.9 below;

d. Compliance with Contract provisions regarding the pricing of Change Orders;

e. Accuracy of Contractor representations regarding the pricing of invoices; or

f. Accuracy of Contractor representations related to claims submitted by Contractor or any of their employees.

8.8.3 Contractor must require all payees (examples of payees include Subcontractors, Suppliers, Insurance Carriers, etc.) to comply with the provisions of this Section by including the requirements hereof in a written Contract Agreement between Contractor and payee. Contractor will ensure that all payees (including those entering into lump sum contracts) have the same right to audit provisions contained in this contract included in their contracts with Contractor.

8.8.4 City's authorized representative(s) (including, without limitation, Project Manager) must have reasonable access to Contractor's facilities, must be allowed to interview all current or former employees to discuss matters pertinent to the performance of this contract and must be provided adequate and appropriate work space, in order to conduct audits in compliance with this Section.

8.8.5 If an audit inspection or examination in accordance with this Section, discloses overpricing or overcharges to City (of any nature) by Contractor or Contractor's Subcontractors in excess of $100,000 in addition to making adjustments for the overcharges, the reasonable actual cost of City's audit must be reimbursed to City by Contractor. Any adjustments or payments which must be made as a result of any such audit or inspection of Contractor's invoices or records must be made within a reasonable amount of time (not to exceed 90 Days) from presentation of City's findings to Contractor.

8.8.6 In addition to the normal paperwork documentation Contractor typically furnishes to City, Contractor agrees to furnish, upon written request from City, any of the documentation necessary for City to exercise its audit rights under this Section 8.8 in computer readable file formats (Word, Excel, or .pdf), as City may designate.

8.8.7 City, its authorized representative, and the appropriate agency, reserve the right to audit Contractor's records in compliance with local, state or federal policies, statutes or at City's discretion, within three (3) years of Final Acceptance of the Work.

SECTION 9 - CHANGES TO THE CONTRACT

9.1 **FIELD ORDERS**

City may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Times, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a written Field Order on the standard form approved and executed by City. Such Field Orders must be binding and Contractor must perform the change promptly. If Contractor believes that a Field Order justifies an increase

in the Contract Price or Contract Time, Contractor may make a claim therefor as provided in Section 7.2.

9.2 **EXTRA WORK/CHANGES IN THE WORK**

9.2.1 City reserves the right to make such changes in the Plans and Specifications for the Work, as it may deem appropriate and any such change as set forth in a written Change Order must be deemed a part of this Contract as if originally incorporated herein.

9.2.2 In the event City and Contractor cannot agree on the terms of a Change Order, or when circumstances otherwise require, the Project Manager has the authority to direct the Contractor to perform extra work, if the work in question is an item not provided for in the Contract as awarded. The Project Manager will have the authority to determine, based upon factual evidence presented by the Contractor, whether the work in question is an item not provided for in the Contract as awarded. If the Project Manager directs the Contractor to perform extra work, the Project Manager's instructions will include a price that the Contractor cannot exceed in charging the City for the extra work. Upon receipt of the Project Manager's directions to perform extra work, the Contractor must promptly proceed with the extra work and document the actual cost thereof. Contractor's right to payment for extra work will be determined under Subsection 9.2.4 below. The Contractor is responsible to manage the extra work to ensure that the price limits set by the Project Manager are not exceeded. Contractor must perform the extra work and submit documentation for the actual cost of the extra work to the City. A Change Order will be issued to cover this work.

9.2.3 Contractor will not be entitled to payment for extra work unless a written Change Order, in form and content prescribed by City, has been executed by City. On all requests for Change Orders, Contractor must specify the increased or decreased costs and whether it believes any extensions of time will be necessary to complete its Work as modified by the Change Order. If extra work is performed under Subsection 9.2.2 above, a corresponding Change Order will be prepared, approved and processed by City before payment can be made to Contractor.

9.2.4 In general, pricing for Change Orders will include the same mark-up percentages that were in effect when the Contract was awarded. The cost or credit to the City resulting from a change in the Work is subject to Appendix 1 (Policy Statement for Calculating Delays and Damages) and will be determined, based on the type of pricing for the Contract involved, as follows:

a. By mutual acceptance of a lump sum properly itemized in a form acceptable to City;

b. By unit prices stated in the Contract Documents;

c. When the City determines that a Unit Price Book Job Order associated with a Job Order Contract requires a Change Order, by using the same Total Cost Data and CCI that are in effect when the Change Order is anticipated to be issued; or

d. By actual cost and a percentage fee covering overhead and profit, as follows:

(i) Contractor will perform the extra work and be compensated for actual cost of labor, materials and equipment.

(ii) Contractor will have the right to add the fee percentage applicable

to the Work under the Contract, or if no such fee has been agreed to by the parties, not more than five percent (5%) to the Subcontractor's prices for authorized extra work performed solely by Subcontractors. Such percentage will include all of Contractor's charges for overhead, profit, administration and supervision.

(iii) Contractor or Subcontractor will have the right to add the fee percentage applicable to Work under the Contract for self-performed extra work, or if no such fee has been agreed to by the parties, Contractor's or Subcontractor's maximum total allowable additions for overhead, profit, administration and supervision will not exceed ten percent (10%) of actual verifiable labor, materials and equipment for such self- performed extra work.

9.2.5 Any agreement which modifies the terms of the Contract (including Change Orders) will be approved in writing by the Project Manager. Once properly executed by both parties, these modifications to the Contract will have the same effect as if they had been included in the original Contract.

9.3 **ACCURACY OF CHANGE ORDER PRICING INFORMATION**

9.3.1 Subject to Sections 9.3.2 through 9.3.4, signature by the contracting parties constitutes full accord and satisfaction between City and Contractor for all costs, damages, and expenses of whatever kind of nature, including delay, impact or acceleration damages, which may be occasioned by a Change Order of other modification of the Contract agreed to in writing.

9.3.2 Accurate Change Order Pricing Information: Contractor agrees that it is responsible for submitting accurate cost and pricing data to City to support its Fixed Price, Unit Price, or Cost Plus Change Order Proposals or other Contract Price adjustments under the Contract. Contractor further agrees to submit Change Order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the Contract with respect to pricing of change orders. Contractor agrees that any "buy-out savings" on Change Orders will accrue 100% to Owner. "Buy-out savings" are defined as any savings negotiated by the Contractor with a Subcontractor or a Material Supplier after receiving approval of a Change Order amount that was designated to be paid to a specific Subcontractor or Supplier for the Approved Change Order work.

9.3.3 Right to Verify Change Order Pricing Information: Contractor agrees that City, through its designated representative, will have the right to examine, copy, and scan the records of the Contractor, Subcontractor or Sub-Subcontractor's records (during the Contract period and up to three years after final payment is made on the Contract) to verify the accuracy and appropriateness of the pricing data used to price all Change Order proposals or claims. Contractor agrees that if City determines the cost and pricing data submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the Contract regarding pricing of Change Orders, an appropriate Contract Price adjustment will be made. Such post-approval Contact Price adjustments will apply to all levels of contractors and Subcontractors and to all types of Change Order proposals, specifically including Fixed Price, Unit Price, and Cost Plus Change Orders.

9.3.4 Requirements for Detailed Change Order Pricing Information: Contractor agrees to provide a detailed breakdown of allowable labor and labor burden cost (i.e., base wage

rate of applicable classifications of workers, payroll taxes, and insurance and benefits costs). This information will be used to evaluate the potential cost of labor and labor burden related to Change Order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. Information is not intended to establish fixed billing or Change Order pricing labor rates. However, at the time Change Orders are priced, the submitted cost data for labor rates may be used to price Change Order work. The accuracy of any such agreed upon labor rate cost components used to price Change Orders will be subject to later audit. Approved Change Order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

9.4 **EMERGENCIES**

In any emergency affecting the safety of persons or property, Contractor will act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price or Contract Time resulting from emergency work will be determined as provided in this Section.

9.5 **DIFFERING SITE CONDITIONS**

9.5.1 If Differing Site Conditions are encountered at the Project Site, then notice by the observing party must be given to the other party promptly before conditions are disturbed (to the extent practicable) and in no event later than 14 Days after first observance of the conditions. City will promptly investigate such conditions and, if City determines that Differing Site Conditions exist and they materially cause an increase in the cost of, or time required for, performance of any part of the Work, Contractor will be entitled to equitable adjustment in the Contract Price or Construction Schedule (and other time requirements), or both. If it is determined by City that the conditions at the Project Site are not Differing Site Conditions and no change is justified, then City will so notify Contractor in writing, stating the reasons. Claims in opposition to such determination must be made within 14 Days after City has given notice of its decision. If City and Contractor cannot agree on an adjustment in the Contract Price or Construction Schedule (and other time requirements), the adjustment may be submitted to dispute resolution as provided these General Conditions.

9.6 **CHANGES IN LAWS, REGULATIONS, OR LEGAL REQUIREMENTS OR TAXES**

In the event of a material change in applicable Laws, Regulations, or Legal Requirements, or taxes subsequent to the date of the Contract by the parties, Contractor may be entitled to a Change Order, in City's discretion, to the extent Contractor can document to the satisfaction of City that such change significantly increases Contractor's actual cost of performance of the Work.

SECTION 10 -SUSPENSION AND TERMINATION

10.1 **SUSPENSION**

City may suspend the Contract and Contractor's performance in accordance with MAG Specifications § 105.1 and 108.7.

10.2 **TERMINATION BY THE CITY FOR CAUSE**

10.2.1 MAG Specifications § 108.11 applies to the Contract.

10.2.2 City may also terminate the Contract if City determines, in its sole discretion that Contractor has:

a. After prior written notice, refused or failed to supply enough properly skilled

workers or proper materials;

b. After prior written notice, failed to make payment to Subcontractors for materials or labor in accordance with the respective agreements between Contractor and the Subcontractors;

c. After prior written notice, disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;

d. After prior written notice, repeatedly failed to comply with written directives from City;

e. Is adjudged as bankrupt or insolvent;

f. Made a general assignment for the benefit of creditors;

g. Appointed a trustee or receiver for itself or any of its property;

h. Filed a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws; or

i. Otherwise breached a provision of the Contract Documents or any other contract between City and Contractor.

10.2.3 When any of the above reasons exist, City may terminate the Contract, without prejudice to any other rights or remedies of City, after giving Contractor and Contractors' surety, if any, 7 Days written notice of City's intent to terminate the Contract and Contractor's failure to cure any such reasons. Upon such termination, City may: (1) take possession of the Site and of all materials thereon owned by Contractor; or (2) finish the Work by whatever reasonable method City may deem expedient. When City terminates the Contract for one of the reasons state above, Contractor will not be entitled to receive further payment until the Work is finished. If the unpaid balance of the Contract Price existing at the time of such termination exceeds the costs and expenses of finishing the Work and any other damages incurred by City, such excess will be paid to Contractor. If such costs, expenses and damages exceed such unpaid balance, Contractor must pay the difference to City. This obligation for payment will survive termination of the Contract.

10.3 **TERMINATION BY CITY FOR CONVENIENCE**

City may also terminate the Contract at any time for its convenience upon 7 Days written notice to Contractor specifying the termination date. In the event of termination which is not the fault, in whole or in part, of Contractor, City will pay to Contractor only such compensation, including reimbursable expenses, due for Work properly performed on the Project prior to the termination date. Upon any termination of the Contract, no further payments will be due from City to Contractor.

10.4 **A.R.S. § 38-511**

The Contract is subject to, and may be terminated by City in accordance with, the provisions of A.R.S. § 38-511.

SECTION 11 -INSURANCE AND BONDS

11.1 **INSURANCE REQUIREMENTS**

11.1.1 After Contract award, the Contractor must furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance

company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement may not be deemed to apply to required Worker's Compensation coverage.

11.1.2 The Contractor and any of its Subcontractors must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, the insurances set forth below.

11.1.3 The insurance requirements set forth below are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

11.1.4 The City in no way warrants that the minimum insurance limits contained in this Contract are sufficient to protect Contractor from liabilities that might arise out of the performance of the Contract services under this Contract by Contractor**,** its agents, representatives, employees, or Subcontractors and the Contractor is free to purchase any additional insurance as may be determined necessary.

11.1.5 Failure to demand evidence of full compliance with the insurance requirements in this Contract or failure to identify any insurance deficiency will not relieve the Contractor from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Contract.

11.1.6 Use of Subcontractors: If any Work is subcontracted in any way, the Contractor must execute a written agreement with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of the Contractor in this Contract. The Contractor is responsible for executing the Contract with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

11.2 **MINIMUM SCOPE AND LIMITS OF INSURANCE**

11.2.1 The Contractor must provide coverage with limits of liability not less than those stated below.

11.2.1.1 Commercial General Liability-Occurrence Form. Contractor must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.2 Automobile Liability-Any Automobile or Owned, Hired and Non-Owned Vehicles. Contractor must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Contractor owned, hired, and non-owned vehicles assigned to or used in the performance under this Contract. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.3 Workers Compensation and Employers Liability Insurance. Contractor must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance of Work

under this Contract and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

11.2.1.4 Builders' Risk/Installation Floater Insurance. The Contractor bears all responsibility for loss to all equipment or Work under construction. Unless waived in writing by the City the Contractor will purchase and maintain in force Builders' Risk/Installation Floater insurance on the entire Work until completed and accepted by the City. This insurance will be Special Causes of Loss policy form, (minimally including perils of fire, flood, lightning, explosion, windstorm and hail, smoke, aircraft and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, and collapse), completed value, replacement cost policy form equal to the contract price and all subsequent modifications. The Contractor's Builders' Risk/Installation Floater insurance must be primary and not contributory.

a. Builders' Risk/Installation Floater insurance must cover the entire Work including reasonable compensation for architects and engineers' services and expenses and other "soft costs" made necessary by an insured loss. Builders' Risk/Installation Floater insurance must provide coverage from the time any covered property comes under the Contractor's control and or responsibility, and continue without interruption during course of construction, renovation and or installation, including any time during which any Project property or equipment is in transit, off Site, or while on Site for future use or installation. Insured property must include, but not be limited to, scaffolding, false work, and temporary buildings at the Site. This insurance must also cover the cost of removing debris, including demolition as may be legally required by operation of any law, ordinance, regulation or code.

b. The Contractor must also purchase and maintain Boiler and Machinery insurance with the same requirements as Builders' Risk/Installation Floater insurance cited above if the Work to be performed involves any exposures or insurable property normally covered under a Boiler and Machinery insurance policy or made necessary as required by law or testing requirements in the performance of this Contract/Agreement. The Contractor will be responsible for any and all deductibles under these policies and the Contractor waives all rights of recovery and subrogation against the City under the Contractor- Builders' Risk/Installation Floater insurance described herein.

c. Builders' Risk/Installation Floater Insurance must be maintained until whichever of the following first occurs: (i) final payment has been made; or, (ii) until no person or entity, other than the City, has an insurable interest in the property required to be covered.

d. The Builders' Risk/Installation Floater insurance must be endorsed so that the insurance will not be canceled or lapse because of any partial use or occupancy by the City.

e. The Builders Risk/Installation Floater insurance must include as named insureds, the City, the Contractor, and all tiers of Subcontractors and others with an insurable interest in the Work who will be named as additional insureds unless they are able to provide the same level of coverage with the City and Contractor named as additional insureds. Certificates must contain a provision that the insurance will not be canceled or materially altered

without at least 30 Days advance notice to the City. The City must also be named as a Loss Payee under the Builders' Risk/Installation Floater coverage.

f. The Builders Risk/Installation Floater insurance must be written using the Special Causes of Loss policy form, replacement cost basis.

g. All rights of subrogation under the Builders Risk/Installation Floater insurance are, by this Contract/Agreement, waived against the City, its officers, officials, agents and employees.

h. The Contractor is responsible for payment of all deductibles under the Builders' Risk/Installation Floater insurance policy.

11.2.1.5 Pollution Liability Insurance (Including Errors and Omissions). For Job Orders, Pollution Liability Insurance is only required if applicable and determined on a project specific basis. Contractor must maintain Pollution Liability Insurance with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate for losses caused by pollution conditions including coverage for bodily injury, property damage, defense costs, clean-up costs, and completed operations that arise from the operations of Contractor as described in this Contract.

a. The policy must provide for complete professional service coverage, including coverage for pollution liability that is a result of a breach of professional duties.

b. The policy must provide for protection again claims for third-party bodily injury, property damage, or environmental damage caused for pollution conditions resulting from general contracting activities for which Contractor is legally liable.

c. The policy must provide for cleanup costs when mandated by governmental entities, when required by law, or as a result of third-party claims.

d. Completed Operations Coverage must be kept in place for up to the statute of repose.

e. The policy must be endorsed to include the following additional insured language: "City, its elected officials, trustees, employees, agents, and volunteers must be named as additional insureds with respect to liability arising out of the activities performed by, or on behalf of Contractor".

f. If Work under this Contract requires the transportation of any hazardous material or regulated substances, Contractor must carry Auto Liability with a CA 9948 endorsement or equivalent.

g. If Work under this Contract requires the disposal of any hazardous materials from the job site, Contractor must obtain a certificate of insurance for Pollution Legal Liability from the disposal site operator with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate.

11.3 ADDITIONAL POLICY PROVISIONS REQUIRED

11.3.1 Self-Insured Retentions or Deductibles. Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

11.3.2 The Contractor's insurance must contain broad form contractual liability coverage.

11.3.3 The Contractor's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees will be in excess of the coverage provided by the Contractor and must not contribute to it.

11.3.4 The Contractor's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

11.3.5 Coverage provided by the Contractor must not be limited to the liability assumed under the indemnification provisions of this Contract.

11.3.6 The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by the Contractor for the City.

11.3.7 The Contractor, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Contract for a minimum period of 3 years following completion and acceptance of the Work. The Contractor must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Contract insurance requirements, including naming the required Additional Insureds set forth herein.

11.3.8 If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Contract.

11.3.9 Insurance Cancellation During Contract Term.

11.3.9.1 If any of the required policies expire during the life of this Contract, the Contractor must forward renewal or replacement Certificates to the City within 10 Days after the renewal date containing all the required insurance provisions.

11.3.9.2 Each insurance policy required by the insurance provisions of this Contract must provide the required coverage and must not be suspended, voided or canceled except after 30 Days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then 10 Days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the require notice, the Contractor or its insurance broker must notify the City of any cancellation, suspension, non-renewal of any insurance within 7 Days of receipt of insurers' notification to that effect.

11.3.10 City as Additional Insured. The above-referenced policies are to contain, or be endorsed to contain, the following provisions:

11.3.10.1 The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, the Contractor including the City's general supervision of the Contractor; Products and Completed Operations of the Contractor; and automobiles owned, leased, hired, or borrowed by the Contractor.

11.3.10.2 The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.

11.4 **BONDS AND OTHER PERFORMANCE SECURITY**

11.4.1 After Contract award, Contractor must provide a Performance Bond and a Payment Bond, each in an amount equal to the full amount of the Contract Price.

11.4.2 Each such bond must be executed by a surety company or companies holding a Certificate of Authority to transact surety business in the State of Arizona, issued by the Director of the Arizona Department of Insurance and must be 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 Audit Staff Bureau of Accounts, U.S. Treasury Department. A copy of the Certificate of Authority must accompany the bonds. The Certificate must have been issued or updated within two (2) years prior to the execution of this Agreement. The bonds must be written or countersigned by an authorized representative of the surety who is either a resident of the state of Arizona or whose principal office is maintained in this state, as by law required.

11.4.3 The bonds must be made payable and be acceptable to City. The bond forms for the performance and payment bonds must be in the forms required under A.R.S. § 34-221, *et. Seq.,* as in Appendices 4 and 5 of these General Conditions.

11.4.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract Documents, Contractor must promptly furnish a copy of the bonds or must permit a copy to be made.

11.4.5 All bonds submitted for this Project must be provided by a company which has been rated AM Best rating of A- or better for the prior four quarters by the latest edition of the 'Results Best's Key Rating Guide (Property/Casualty)" published by the A.M. Best Company.

11.4.6 Personal or individual bonds are not acceptable.

11.4.7 If the surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent, or Contractor's 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 this Section 11.4, Contractor must within 5 Days thereafter substitute another Bond and surety, both of which must be acceptable to City.

SECTION 12 - INDEMNIFICATION

12.1 To the extent permitted by law, the Contractor and its owners, officers, directors, agents, employees, and subconsultants (collectively "lndemnitor") must indemnify, save, and hold harmless the City and its officers, officials, agents, and employees (collectively "lndemnitee") from any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation, and litigation) (collectively "Claims") caused or alleged to be caused, in whole or in part, by the negligent, reckless, wrongful, or willful acts, errors, or omissions of Indemnitor in connection with this Agreement. This indemnity includes any Claim or amount arising out of or recovered under workers' compensation laws or on account of Indemnitor's failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, or court decree. Indemnitor must

indemnify Indemnitee from and against any and all Claims, except those arising solely from Indemnitee's own negligent, reckless, wrongful, or willful acts, errors, or omissions. Indemnitor is responsible for primary loss investigation, defense, and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Indemnitor agrees to waive all rights of subrogation against Indemnitee for losses arising from or related to this Agreement. Indemnitor's obligations under this provision survive the termination or expiration of this Agreement.

SECTION 13 -DISPUTE RESOLUTION

13.1 All disputes arising out of or relating to the Contract, the Work or the Project, other than termination under Section 10, will be resolved pursuant to the Dispute Resolution process set forth in Appendix 6 of these General Conditions, and not pursuant to MAG Specifications § 110.

13.2 Contractor agrees that during any dispute between the parties, Contractor will continue to perform its obligations under the Contract until such dispute is resolved.

13.3 Notwithstanding any other provision in this Contract, City has the right to immediately file in court and pursue an action for a temporary restraining order and injunctive relief against Contractor if City determines that such action is necessary to protect its interests under the Contract, to obtain specific performance of any provision of the Contract, to advance the completion of the Project, or to protect health, welfare and safety.

SECTION 14 - MISCELLANEOUS PROVISIONS

14.1 CONTRACT DOCUMENTS

14.1.1 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Times for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

14.1.2 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 must be provided by Contractor whether or not specifically called for at no additional cost to City.

14.1.3 The Contract Documents establish the rights and obligations of the parties and include the Contract, Addenda (which pertain to the Contract Documents), Contractor's Bid or Proposal (including documentation accompanying the Bid and any post-Bid documentation submitted prior to Contract award) when attached as an exhibit to the Contract, the accepted Project Schedule, the Notice to Proceed, the Performance Bond, the Payment Bond, Project Design, Engineering and Specifications, these General Conditions, the Project Specific Special Provisions, Technical Specifications, Contract Drawings, as the same may be more specifically identified in the Contract, Change Orders, Work Change Directives, Field Orders and the written interpretations and clarifications of the Design Professional or City representative and Modifications issued after execution of the Contract. Approved Shop

Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents.

14.1.4 In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents will take precedence as follows from highest to lowest: Change Orders, Addenda, Contract, Project Specific Special Provisions, General Conditions, Technical Specifications, Drawings/Plans, Chandler Amendments to MAG Standard Specifications and Chandler Standard Details, and MAG Uniform Standard Specifications and Details for Public Works Construction. If applicable to this Contract, Federal Provisions prevail.

14.1.5 On the Drawings, given dimensions will take precedence over scaled measurements and large scale drawings over small-scale drawings.

14.1.6 Clarifications and interpretations of the Contract Documents will be issued by the Design Professional through the City.

14.1.7 The headings used in this Agreement or any other Contract Documents, are for ease of reference only and must not in any way be construed to limit or alter the meaning of any provision.

14.1.8 The Contract Documents form the entire agreement between City and Contractor. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

14.1.9 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party in the form of a Change Order.

14.1.10 Re-Use of Documents. Neither Contractor nor any Subcontractor, manufacturer, fabricator, supplier or distributor will 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 the Design Professional; and they must not re-use any of them on extensions of the Project or any other project without written consent of City and the Design Professional and specific written verification or adaptation by the Design Professional.

14.2 **REFERENCE STANDARDS**

14.2.1 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, will 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 Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

14.2.2 The provisions of any such standard, specification, manual or code, or any instruction of a Supplier will not change the duties or responsibilities of City, Contractor, Design Professional or Project Manager, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor will any such provision or instruction assign to City, Contractor, Design Professional, or any of their 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.

14.3 **COMPLIANCE WITH ARIZONA LAW AND FEDERAL LAW**

14.3.1 Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Contractor hereby warrants to the City that the Contractor and each of its subcontractors ("Subcontractors") must comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A).

14.3.2 A breach of the Contractor Immigration Warranty constitutes a material breach of this Contract and subject to penalties up to and including termination of this Contract.

14.3.3 The City retains the legal right to inspect the papers of any Contractor or Subcontractor employee who works on this Contract to ensure that the Contractor or Subcontractor is complying with the Contractor Immigration Warranty. The Contractor agrees to assist the City in the conduct of any such inspections.

14.3.4 The City may, at its sole discretion, conduct random verifications of the employment records of the Contractor and any Subcontractors to ensure compliance with Contractors Immigration Warranty. The Contractor agrees to assist the City in performing any such random verifications.

14.3.5 The provisions of this Article must be included in any contract the Contractor enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any structure, building or transportation facility or improvement to real property.

14.4 **HAZARDOUS ENVIRONMENTAL CONDITIONS**

14.4.1 Contractor will 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 Document to be within the scope of the Work. Contractor will 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.

14.4.2 If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition. Contractor must immediately:

a. Secure or otherwise isolate such condition;

b. Stop all Work in connection with such condition and in any area affected thereby; and

c. Notify City and promptly thereafter confirm such notice in writing.

14.4.3 City will promptly retain a qualified expert to evaluate such condition or take corrective action, if any.

14.4.4 Contractor will be responsible for any and all civil or criminal penalties, fines, damages, or other charges imposed by any regulatory agency or court for sewage discharges that are in

violation of applicable statutes and laws and that are a result, direct or indirect, of work performed under this Contract. Contractor will also be responsible for reimbursement to City for administration, reporting, and tracking expenses required as a result of any spill event. In the event the regulatory agency or court imposes a probationary period, Contractor must post bond for the probationary period to ensure that all such costs are reimbursed to City. This responsibility will apply whether penalties are imposed directly on Contractor or any of its Subcontractors, or the City of Chandler. Contractor must defend and indemnify City against such penalties. Regulatory agencies may include, but are not limited to, the Arizona Department of Environmental Quality (ADEQ) and the United States Environmental Protection Agency (USEPA).

14.5 **COOPERATION AND FURTHER DOCUMENTATION**

Contractor agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of the Contract Documents.

14.6 **ASSIGNMENT**

Neither Contractor nor City will, without the written consent of the other assign, transfer or sublet any portion of this Agreement or part of the Work or the obligations required by the Contract Documents, any such assignment will be void, will transfer no rights to the purported assignee, and would be a material breach of the Contract.

14.7 **SUCCESSORS**

Contractor and City intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

14.8 **LAWFUL PRESENCE**

Pursuant to A.R.S. §§ 1-501 and 1-502, City is prohibited from awarding a contract to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

14.9 **NO BOYCOTT OF ISRAEL CERTIFICATION**

By Contractor's signature on this Contract, Contractor certifies under A.R.S. § 35-393.01 that Contractor is not currently engaged in and for the duration of this Contract will not engage in a boycott of Israel.

14.10 **NO THIRD PARTY BENEFICIARY**

Nothing under the Contract Documents will be construed to give any rights or benefits in the Contract Documents to anyone other than City and Contractor, and all duties and responsibilities undertaken pursuant to the Contract Documents will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party, unless otherwise expressly set forth in the Contract Documents.

14.11 **GOVERNING LAW AND VENUE**

The Agreement and all Contract Documents will be deemed to be made under, and will be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any court action to enforce any provision of the Contract or to obtain any remedy with respect hereto must be brought in the Superior Court, Maricopa County, Arizona, and for this purpose, each party hereby

expressly and irrevocably consents to the jurisdiction and venue of such Court.

14.12 **SEVERABILITY**

If any provision of the Contract Documents or the application thereof to any person or circumstance will be invalid, illegal or unenforceable to any extent, the remainder of the affected provision, the remainder of the Contract Documents, and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

14.13 **LEGAL REQUIREMENTS**

At all times relevant to its entry into this Contract and performance of the Services and the Work, Contractor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project, and the Contract, including, without limitation, those set forth on Exhibit C of the Contract.

14.14 **PARTIAL INVALIDITY**

If any provision of the Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

14.15 **ATTORNEYS' FEES**

Should either party to the Contract bring an action to enforce any provision of the Contract, the prevailing party will be entitled to recover reasonable attorneys' fees and costs in connection therewith.

14.16 **CONFLICT OF INTEREST**

14.16.1 Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, existing prior to the execution of the Contract. Further, Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, if Contractor gains such interest during the course of this Contract. If Contractor gains financial or economic interest in the Project during the course of this Contract, this may be grounds for terminating this Contract. Any decision to terminate the Contract must be at the sole discretion of City.

14.16.2 Contractor will not engage the services on this Contract of any present City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Contract Modifications for this Contract.

14.16.3 Contractor agrees that it will not perform services on this Project for a contractor, subcontractor, or any supplier, not covered under this Contract.

14.17 **INDEPENDENT CONTRACTOR**

Contractor is and must be an independent contractor. Any provisions in the Contract Documents that may appear to give City the right to direct Contractor as to the details of accomplishing the Work or to exercise a measure of control over the Work means that Contractor must follow the wishes of City as the results of the Work only. These results must comply with all applicable laws and ordinances.

14.18 **NOTICE OF INJURY**

Should City or Contractor suffer injury or damage to their person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim must be made in

writing to the other party within 7 Days of the first observance of such injury or damage.

14.19 **CONFIDENTIALITY**

Contractor, for the benefit of City, hereby agrees it will not release or cause or permit to be released to the public any press notices, publicity (oral or written) or advertising promotion relating to, any statement regarding, or any other public announcement or disclosure or cause or permit to be publicly announced or disclosed, in any manner whatsoever, the specific terms and conditions of this Agreement or any comment relating to the Project or the Site. Notwithstanding the foregoing, Contractor will be entitled to disclose the terms of the Agreement to the extent required by law or in the course of enforcing or defending a claim or action hereunder. Contractor must give City reasonably prompt notice of any disclosure or statement made pursuant to this provision.

14.20 **DATA CONFIDENTIALITY**

14.20.1 As used in the Contract, "data" means all information, whether written or verbal, including plans, specifications, renderings, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the City in the performance of this Contract.

14.20.2 Contractor agrees that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to City in connection with the Contractor's performance of this Contract is confidential and proprietary information belonging to City.

14.20.3 Except as specifically provided in this Contract, Contractor or its Subcontractors must not divulge data to any third party without prior written consent of City. Contractor or its Subcontractors must not use data for any purposes except to perform Work required under this Contract. These prohibitions will not apply to the following data provided Contractor has first given the required notice to City:

a. Data which was known to Contractor or its Subcontractors prior to its performance under this Contract unless such data was acquired in connection with Work performed for City;

b. Data which was acquired by Contractor or its Subcontractors in its performance under this Contract and which was disclosed to Contractor or its Subcontractors by a third party, who to the best of Contractor's or its Subcontractor's knowledge and belief, had the legal right to make such disclosure and Contractor or its Subcontractors are not otherwise required to hold such data in confidence; or

c. Data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its Subcontractors are subject.

14.20.4 In the event the Contractor or its Subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its Subcontractors became privy as a result of any other contract with City, the Contractor must first notify City as set forth in this Section of the request or demand for the data. The Contractor or its Subcontractors must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure.

14.20.5 Unless prohibited by law, within 10 Days after completion of services for a third party on real or personal property owned or leased by City, the Contractor must promptly deliver, as set forth in this Section, a copy of all data to City. All data will continue to be subject to the confidentiality agreements of this Contract.

14.20.6 Contractor or its Subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agree to compensate City if any of the provisions of this Section are violated by Contractor, its employees, agents, or Subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section will be deemed to cause irreparable harm that justified injunctive relief in court. Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this Contract without notice.

14.21 **SURVIVAL**

All warranties, representations and indemnifications by Contractor must survive the completion or termination of this Agreement.

14.22 **COVENANTS AGAINST CONTINGENT FEES**

Contractor warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of City Council, or any employee of City has any interest, financially, or otherwise, in the firm. For breach or violation of this warrant, City will have the right to annul the Contract without liability or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

14.23 **NO WAIVER**

The failure of either party to enforce any of the provisions of the Contract Documents or to require performance of the other party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor will it affect the validity of the Contract Documents or any part thereof, or the right of either party to thereafter enforce each and every provision.

14.24 **NONEXCLUSIVE REMEDIES**

The remedies set forth in this Contract are cumulative and not exclusive, and failure to exercise any remedy (including, without limitation, any right to terminate) will not preclude any party from exercising any other right in seeking any other remedy available to it at law or in equity.

14.25 **PROJECT COMMUNICATIONS**

14.25.1 All communications concerning the performance of the Work or the Project will be provided to the designated Project Manager and Contractor's Representative set forth in Article 1 of the Contract. City may change the designated Project Manager and, subject to Section 4.4.20 of these General Conditions, Contractor may change Contractor Representative, by written notice to the other.

14.25.2 Project communications may be exchanged by e-mail, but email communications cannot change the terms of the Contract or the Scope of Work, or effectuate any change that requires a written Change Order.

14.25.3 When any provisions of the Contract Documents requires Contractor or the Design

Professional to give written notice to City, it will be deemed to have been validly given if delivered in person to the person designated in the Contract Documents as Project Manager, or if delivered at or sent by registered or certified mail, postage prepaid, to the City Engineer addressed as follows:

To City:	City of Chandler Public Works & Utilities Department Attn: City Engineer P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
With a Copy to:	Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
With a Copy to:	Paul Ahlas, Construction Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
To Contractor:	

14.25.4 When any provisions of the Contract Documents requires City, Project Manager, or the Design Professional to give written notice to Contractor, it will be deemed to have been validly given if delivered in person to the person designated in the Contract Documents as Contractor's Resident Superintendent, or if delivered at or sent by registered or certified mail, postage prepaid, to Contractor at the last address in the Contract Documents or such substitute address which Contractor designates in writing, or to the business address known to the giver of notice.

14.26 **DRUG FREE WORKPLACE PROGRAM**

14.26.1 City has adopted a policy establishing a drug free workplace for itself and as a requirement for Contractors doing business with City, to ensure the safety and health of employees working on City projects.

14.26.2 Contractor must require a drug free workplace for all employees working under the Contract. Specifically, all employees of Contractor who are working under a Contract with City must be notified, in writing, by Contractor that they are prohibited from the manufacture, distribution, dispensation, possession or unlawful use of a controlled substance in the workplace.

14.27 Failure to require a drug free workplace in accordance with the City's policy may result in termination of the Contract and possible debarment form bidding on future City projects.

SECTION 15 - PROVISIONS APPLICABLE SOLELY TO GMP AND COST-BASED CONTRACTS, CHANGE ORDERS, AND JOB ORDERS

15.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 apply to GMP and Cost-Based Contracts, Change Orders, and Job Orders, together with the additional definitions set forth below.

Baseline Cost Model –
A breakdown and estimate of the scope of the Project developed by CM@Risk pursuant to Section 17.5 of these General Conditions.

CM@Risk or Construction Manager at Risk –
The person or firm selected by City to provide pre-construction and/or construction services as detailed in a Construction Manager at Risk Contract with City. In these General Conditions, the term "Contractor" includes CM@Risk under both Pre-Construction and Construction Services Contracts.

CM@Risk Fee or Contractor's Fee –
An agreed to percentage in an accepted GMP that represents the Contractor's fee for performance of the Work.

Contract Documents –
Where compensation under the Contract is based upon a GMP accepted by City, the term "Contract Documents" also includes the accepted GMP Proposal.

Contract Price –
Where compensation under the Contract based upon a GMP accepted by City, the term "Contract Price" refers to the GMP.

Cost-Based Contract, Change Order, or Job Order –
A Contract, Change Order, or Job Order where the Contract Price is based upon the actual cost of performing the Work, subject to the terms of the Contract Documents, including this Section 15. These would include those generally referred to as "Cost of the Work plus a Fee with a GMP," "Time and Materials," or "Cost Plus a Fee."

Cost of the Work –
The direct costs necessarily incurred by Contractor in the proper, timely, and complete performance on the Work. The Cost of the Work will include only those costs set forth in Section 15.2 of these General Conditions.

Deliverables –
The work products prepared by Contractor in performing the scope of work described in the Contract. Some of the major deliverables to be prepared and provided by Contractor during pre-construction may include but are not limited to: the Baseline Cost Model and Schedule that validate City's plan and budget, Construction Management Plan, Detailed Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, Detailed Cost Estimates, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, Constructability Review, Cost Control Log, Traffic control and phasing plans and others as indicated in this Contract or required by the Project Team.

Pre-Construction Services Contract –
The Contract entered into between City and the CM@Risk for Pre-Construction Services to be provided

by the CM@Risk, including, without limitation, the generation of a GMP Proposal. If the GMP Proposal is accepted by City and a Construction Contract is entered into between City and CM@Risk, the duties, obligations and warranties of the CM@Risk under the Pre-Construction Services Contract survive and are incorporated into the resulting Construction Contract.

Pre-Construction Services –
The services to be provided under the Pre-Construction Services Contract, including Section 17 of these General Conditions.

Detailed Project Schedule –
The Detailed Project Schedule developed by the CM@Risk for the review and approval of the Project Manager in accordance with Section 17.3 of these General Conditions, if applicable.

General Conditions Costs –
Those costs set forth in Section 4 of Appendix 9 to these General Conditions.

GMP Plans and Specifications –
The plan and specifications upon which the Guaranteed Maximum price Proposal is based.

GMP Proposal –
The proposal of Contractor submitted pursuant to Section 17.7 of these General Conditions for the entire Work and/or portion (phases) of the Work.

Guaranteed Maximum Price or GMP –
The Guaranteed Maximum Price set forth in the Contract, Change Order, or Job Order if applicable.

15.2 **CONTRACT PRICE**

15.2.1 The Contract Price for all Contracts, Change Orders, and Job Orders based upon payment of the Cost of the Work plus a Fee with a GMP, time and materials, or cost-plus a fee will be the Cost of the Work incurred plus the Fee agreed to in writing by City, limited to the amount of the GMP, if agreed to. Unless otherwise expressly provided in the Contract, Change Order, or Job Order, all Cost Based pricing will be subject to and limited to GMP.

15.2.2 The Contract Price may only be changed as set forth in Section 9 above.

15.2.3 Only costs specifically designated as reimbursable costs are eligible for payment by City or may be charged against the Contract Price. All other costs will not be paid by City and will not be chargeable against the Contract Price.

15.2.4 Cost-Based Contracts. For Contracts, Change Orders, or Job Orders, reimbursable costs must be determined pursuant to Appendix 9 to these General Conditions, Cost of the Work, and not by MAG Specifications §109.5.

15.3 **ALLOWANCES**

15.3.1 Contractor must include in the Contract Price all Allowances stated in the Contract Documents and agreed to in writing by City. Items covered by these Allowances must be supplied for such amounts and by such persons as City may direct, provided Contractor will not be required to employ persons against whom Contractor makes a reasonable objection. Materials, labor, and equipment under an Allowance will be selected by City in accordance with a schedule to be mutually agreed upon by City, Design Professional and Contractor or

otherwise in reasonably sufficient time to avoid delay in the Work.

15.3.2 Unless otherwise provided in the Contract Documents:

15.3.2.1 These Allowances must cover the cost to Contractor, less any applicable trade discount, of the materials, labor, and equipment required by the Allowances, delivered at the Site, and all applicable taxes;

15.3.2.2 Contractor's costs for unloading and handling on the Site, labor, installation costs, overhead, profit and other expenses relating to materials, labor, and equipment required by the Allowance must be included in the Contract Sum and not in the Allowance; and

15.3.2.3 Whenever the cost is more or less than the Allowance, the Contract Sum must be adjusted accordingly by Change Order, the amount of which will recognize the difference between actual costs for an Allowance item and the amount of the Allowance item and changes, if any, in handling costs on the Site, labor, installation costs, overhead, profit and other expenses.

15.4 **CONTINGENCY**

An agreed to amount in the GMP that may only be used in accordance with the terms set forth in these General Conditions and with prior written approval by the City.

15.4.1 Construction Contingency. This GMP includes a dollar amount listed as a Construction Contingency which will be readily available for increased costs for subcontractors, material, and equipment subject to prior approval of City, which approval will not be withheld unreasonably. The Construction Contingency may also be used, at the discretion of City, to reimburse CM@Risk for unexpected costs due to (a) scope gaps between trade subcontractors; (b) contract default by trade subcontractors; (c) unforeseen field conditions, but only as defined in Section 9.5 above; (d) work completed to meet the intent of the design, but which was not indicated on the plans; (e) costs overruns not covered by allowances; (f) costs of corrective work not provided for elsewhere; and (g) implementation of any Recovery Plan. Cost for which CM@Risk desires to be paid from the Construction Contingency must be documented by CM@Risk on a time and materials basis and are subject to verification by City. If agreed to by City, a "Use of Contingency" form will be executed by both parties authorizing the actual cost of the work to be paid and included in the Work Item Direct Costs. The Construction Contingency is not allocated to any particular item of the Project but may be used for any portion of the work as determined above. Any amount not used in the Construction Contingency will belong to City and will reduce the GMP.

15.4.2 Owner's Contingency. This GMP also includes a dollar amount listed as an Owner's Contingency which may be used only by the City (owner department) for upgrades and changes in scope or other changes not already included within the intent of the Project Program. City will provide CM@Risk with a Work Change Directive authorizing CM@Risk to perform the additional work and to transfer funds from the Owner's Contingency to the Work Item Direct Costs category to be paid with such direct costs. These additional costs will be in an amount mutually agreed upon by CM@Risk and City or will be documented by CM@Risk on a time and materials basis and are subject to verification by City. Any amount not used in the Owner's Contingency will belong to the City and will reduce the GMP.

15.5 **REDUCTION IN RETENTION**

If the Contract Price is based upon a GMP, in order to receive payment of one-half of the

retention as set forth in Section 8.1.5 above, Contractor must also submit to the Project Manager a complete accounting of the Actual Reimbursable Cost of the Work to date, including all such documentation (including, without limitation, invoices, subcontract, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the actual reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. The Project Manager's determinations as to Actual Reimbursable Cost of the Work will be the basis of payment until final Project Closeout and Final Payment under the Contract.

15.6 **FINAL PAYMENT**

If the Contract Price is based upon a GMP, as a further condition precedent to Final Payment by City, Contractor must submit to the Project Manager a complete final accounting of the Actual Reimbursable Cost of the Work, including all such documentation (including, without limitation, invoices, subcontracts, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the Actual Reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. Disputes relating to the Final Cost of the Work will be subject to City's audit rights under Sections 8.8 above and 15.7 below, and the dispute resolution process under Section 13 above.

15.7 **OPEN BOOK**

On any GMP-based or Cost-Based Contract, Job Order, or Change Order, City may attend any and all meetings or discussions pertaining to the Project, including bid openings, and must have access to all books, invoices, accounts, memoranda, correspondence, and written communications or records of any kind pertaining to the Project, including without limitation, those stored in electronic format.

15.8 **DIFFERING SITE CONDITIONS AND/OR CHANGE IN LAWS**

A Change Order for increased costs under Section 9.5 or 9.6 above will only be considered or granted by City to the extent such actual, documented costs are justified.

SECTION 16 - PROVISIONS APPLICABLE SOLELY TO JOB ORDER CONTRACTS (JOC)

16.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Sections 2 and below will apply to all Job Order Contracts and Job Orders. In addition, the definitions set forth in Section 15.1 above will apply to all Cost-Based Job Orders.

Contract –
Includes the Job Order Master Agreement and Job Order Project Agreements issued and agreed to by City and JOC Contractor.

JOC Contractor's Coefficient –
A numerical factor that represents JOC Contractor total costs (indirect and direct costs, sales tax, profit, etc.) and other adjustments for market conditions.

Job Order Request for Proposal (RFP) –

The Request for Proposals issued by City for each Job Order Project Agreement relating to a specific Project.

Job Order Cost Proposal –
The Proposal submitted by JOC Contractor in response to a Job Order Request for Proposal (RFP) issued by City to develop a Job Order Project Agreement for a specific Project.

Guaranteed Maximum Price (GMP) Job Order –
Job Order under which JOC Contractor is compensated for actual costs incurred.

Job Order Project Agreement (Job Order) –
The agreement for a specific project, as it may be modified by all Change Orders, executed by the Parties, which incorporates the terms and conditions of the Job Order Master Agreement.

16.2 **ORDERING AND PROCESSING PROCEDURES FOR JOB ORDERS**

16.2.1 The process for developing and issuing a Job Order for a particular Project consists of three (3) procedures: (1) issuance of a RFP by City; (2) JOC Contractor's response to the RFP in the form of JOC Contractor's Job Order Cost Proposal; and (3) Issuance of a Job Order by City, as set for below.

16.2.2 RFP's For Job Orders

16.2.2.1 City will provide to JOC Contractor RFP with a Scope of Work (SOW) describing the Work to be performed, which may include special instructions and conditions, material submittal requirements, and, if applicable, a complete set of sketches, construction drawings and specifications for the Job Order.

16.2.2.2 Some Job Order RFP's will be issued by City without detailed sketches, drawing and specifications and will rely on JOC Contractor to produce them for City review and approval and is considered to be Pre-Construction and incidental design services included in JOC Contractor's overhead for GMP Job Orders. In addition JOC Contractor will not be reimbursed for any Pre-Job Order costs, including proposal preparation, attendance during negotiations, or site visits.

16.2.3 JOC Contractor's Job Order Cost Proposal

16.2.3.1 JOC Contractor must respond within ten (10) calendar days of the RFP date or site visit, whichever is later or as otherwise indicated on a case-by-case basis, by submitting JOC Contractor's Job Order Cost Proposal to the City representative.

16.2.3.2 Unless otherwise required under the terms of the RFP, JOC Contractor's Job Order Cost Proposal must include the following.

a. JOC Contractor's Job Order Cost Proposal in PDF and electronic format;

b. A Project Schedule and schedule of values that reflects the costs of each work element on the schedule. The schedule must show all milestones (e.g., permits, submittals, ordering materials, demolition, work phases, closeout and completion date); and

c. Necessary documentation will be required to indicate that adequate scoping, layout, setup and planning to accomplish the Work has been done.

Examples of documentation that might reasonably be expected include sketches, drawings, calculations, catalog cuts and specifications produced to a level of detail and skill that could be expected of experienced, competent Project Managers with five or more periods experience in their respective trade.

16.2.3.3 JOC Contractor must select Subcontractors based on qualifications alone or on a combination of qualifications and price and must not select Subcontractors based on price alone. A qualifications and price selection may be a one-step selection based on a combination of qualifications and price or two-step selection. In a two-step selection, the first step must be based on qualifications alone and the second step may be based or a combination of qualifications and price or on price alone.

16.2.3.4 Upon request, JOC Contractor must provide City with copies of Subcontractor quotes and the basis for selection of each Subcontractor.

16.2.3.5 If City objects to a selected Subcontractor, City will make the objection and the reasons for the objection known to the JOC Contractor. JOC Contractor must then present an acceptable Subcontractor for the applicable discipline. City will not unreasonably object to or withhold approval of a Subcontractor.

16.2.3.6 For self-performed work, the City retains the right to have the JOC Contractor establish JOC Contractor's costs by bidding their costs against at least three (3) other interested trade Contractors. No self- performed work will be allowed to be performed on a lump sum basis.

16.2.4 Issuance of Job Order

16.2.4.1 City Representative will compare the JOC Contractor's Job Order Cost Proposal with the City's estimate, schedules and other requirements, and then, if the City Representative determines it is in the best interest of City, arrange a meeting with JOC Contractor, at which time the JOC Contractor's Job Order Cost Proposal will be discussed and negotiated.

16.2.4.2 If the City Representative determines that it is in the best interest of the City, City will then issue a Job Order to JOC Contractor for execution.

16.2.4.3 Specific Job Orders may vary, but unless agreed to by City in writing otherwise, the content of Job Orders under the Contract will generally be as follow, all of which will be signed and/or initialed by JOC Contractor's designated representative:

a. The description of the Scope of the Work and Project Schedule (attached as Exhibit A to the Job Order);

b. The address or location of the Work;

c. The Contract Price for Work (Construction) included in the Project (attached as Exhibit B to the Job Order);

d. The name of the JOC Contractor representative for the Project;

e. The Drawings and Specifications for the Project;

f. If any shop drawings, project date and/or samples are required for the Job Order, the date for delivery of each required item (included in the Project Schedule, Exhibit A to the Job order); and

g. Project Specific Provisions, if any, in Exhibit A to the Job Order,

including, without limitation, whether any of the following are required: Pre-Construction Conference, weekly progress meetings, field office, storage enclosure, materials and equipment handling facility, submittals, shop drawings, product data, equipment list, samples, project manual, schedule of values, Construction progress schedule, narrative reports, progress report, progress charts, progress photographs, materials status report, Construction diagram, Construction status report, operation and maintenance data, operating maintenance instructions and parts list, and as-build drawings.

16.2.5 Job Order Intent. Each Job Order will be interpreted to include all items reasonably necessary to complete the Project under that Job Order as described in the scope of the Work in that Job Order. All Work must be performed in a professional manner and all materials used must be new and of the highest quality and of the type best adapted to their purpose, unless otherwise specified. The Notice to Proceed date, and the award date established therein, will be deemed an integral part of the Job Order the same as if set forth therein.

16.3 **INCIDENTAL DESIGN SERVICES**

16.3.1 This effort includes all "extensions of design" for systems that are typically specified in a performance oriented manner by consultants and designers. Examples include: fire sprinkler systems, fire alarm and sprinkler systems, DDC controls, control systems, prefabricated metal building and similar situations. These designs are normally provided under submittals as a shop drawing with engineering backup and as appropriate, seals of registered engineers specializing in the particular system.

16.3.2 Incidental design includes all documents, sketches, schematic diagrams, floor plan layouts, equipment schedules and other documents produced by the JOC Contractor to define the work required for projects that the City does not develop formal or abbreviated designs requiring a seal by a registered engineer. Incidental design does not include preparation of designs requiring an architect or engineer seal.

16.3.3 JOC Contractor represents, covenants, and agrees, and contractually assumes the obligation to furnish, all of the required Design Services through properly licensed and experienced Design Professionals in complete accordance with all of the duties imposed on a Design Professional under the Contract Documents, Laws, Regulations, or Legal Requirements, and the common law.

16.3.4 All Design Documents (and all other Project-related documents, models, computer drawings and other electronic expression, photographs and other expressions CADD, and BIM files and images included) that JOC Contractor and/or JOC Contractor's Design Professional(s) prepare in connection with a Job Order and the copyrights therein (collectively, the "Instruments of Service") will be the property of City. JOC Contractor covenants and agrees to execute any additional document reasonably requested by City to confirm such assignment without any additional compensation.

16.4 **CONSTRUCTION SERVICES**

16.4.1 The following subsections of this Section 16.4 set forth requirements beyond those set forth in Section 4 above which apply to Construction Services performed under a Job Order.

16.4.2 JOC Contractor must perform the Work using only those firms, team members and individuals designated by JOC Contractor consistent with each Job Order or otherwise approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

16.4.3 Construction Phasing

16.4.3.1 City use of the facilities is anticipated while the Work is being performed. The Work must be planned and accomplished so that there will be a minimum of interference and inconvenience to occupants in the building and agencies in the vicinity and to other craftsmen who may have to do work in the affected facilities. Any blockage of building exits or driveways must be coordinated in advance.

16.4.3.2 If applicable, furniture, portable office equipment and wall appurtenances not rigidly fastened to the walls must be moved by JOC Contractor, protected from damage and replaced to the original position upon completion of the work. If the work required by the Job Order will not allow furniture and portable office equipment to be replaced to its original position, new locations will be designated by City. Incidental costs associated with moving one-piece furnishings up to approximately 150 pounds to perform such tasks as painting, carpet or tile replacement, etc., are considered a general cost of building renovation and must be included in the JOC Contractor's Coefficient. Costs for large scale or wholesale removal and replacement of large quantities of desks or modular workstations, copiers, multiple full file cabinets, etc. to another location or storage outside the work space, or disassembly and reassembly of modular furniture is not considered part of the JOC Contractor's Coefficient and will be priced separately.

16.4.3.3 The work must, so far as practicable, be done in definite sections or divisions and confined to limited areas which must be completed before work in other sections or divisions are begun.

16.4.4 Work Site Conflicts. In the event of a conflict between JOC Contractor and others in an occupied facility or where other Contractors are performing work on the same facility under other Contracts, City will decide to dispute and that decision will be final.

16.4.5 Ownership of Work Product. Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, JOC Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

16.5 **OPTIONAL LIQUIDATED DAMAGES**

16.5.1 Specific Job Orders. City will have the right to assess liquidated damages in relation to any specific JOC Project Agreement as set forth below.

16.5.2 Substantial Completion Liquidated Damages. JOC Contractor acknowledges and agrees that if JOC Contractor fails to obtain Substantial Completion of the Work within the Contract

Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and JOC Contractor agree that if JOC Contractor fails to achieve Substantial Completion of the Work within the Contract Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

16.5.3 Final Acceptance Liquidated Damages. For the same reasons set forth in Section 16.5.2 above, City and JOC Contractor further agree that if JOC Contractor fails to achieve Final Acceptance of the Work within the Contract Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under any specific JOC Project Agreement.

16.5.4 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 may apply to any specific JOC Project Agreement.

16.5.5 City may deduct liquidated damages assessed pursuant to this Section 16.5 from any unpaid amounts then or thereafter due JOC Contractor under the Contract or any specific JOC Project Agreement between JOC Contractor and City. Any liquidated damages not so deducted from any unpaid amounts due JOC Contractor must be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable to JOC Contractor.

16.6 **PERFORMANCE MEASUREMENT**

16.6.1 Performance Assessment. After the Final Acceptance of Work under each Job Order, City will complete a written evaluation of the performance of JOC Contractor on the Job Order.

16.6.2 Consideration in Assignment of Work. JOC Contractor's record of cost, schedule and quality performance and comparative assessments will be significant considerations in City's determination whether to award future Job Orders. JOC Contractor agrees that any determination by City not to not award future Job Orders or Option periods based on performance will be at the sole discretion of City.

SECTION 17 - PROVISIONS APPLICABLE SOLELY TO PRE-CONSTRUCTION SERVICES FOR CONSTRUCTION MANAGER AT RISK

17.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 and 15.1 above will apply to all Pre-Construction Services Contracts.

17.2 **GENERAL**

17.2.1 CM@Risk must perform the Services required by, and in accordance with the Contract Documents and as outlined in Exhibit A of the Contract to the satisfaction of the Project Manager, exercising the degree of care, skill, diligence and judgment a professional construction manager experienced in the performance of such services for construction and/or facilities of similar scope, function, size, quality, complexity and detail to the Project in urban areas throughout the United States, would exercise at such time, under similar conditions. CM@Risk must, at all times, perform the required services consistent with sound and generally accepted engineering principles and construction management

and construction contracting practices.

17.2.2 As a participating member of the Project Team, CM@Risk must provide to City and Design Professional a written evaluation of City's Project Program and budget, each in terms of the other, with recommendations as to the appropriateness of each. CM@Risk must prepare a Baseline Cost Model that validates City's budget. The Baseline Cost Model must include all assumptions and basis of estimates in enough detail so that the Project Team can compare future detail estimates to the Baseline Cost model for variances. City and Design Professional will provide all the reasonably required data that is available in order to reach agreement between the team members that the Baseline Cost Model is an accurate projection of the costs of the Project.

17.2.3 CM@Risk must attend Project Team meetings, which may include, but are not limited to, bi- weekly Project management meetings, Project workshops, special Project meetings, construction document rolling reviews, public meetings and partnering sessions. CM@Risk attendance at design or other meetings in which CM@Risk is provided the opportunity but does not actively participate and/or is not properly prepared is not acceptable. Repeated instances of non-participation and/or lack of preparedness will be grounds for termination of CM@Risk Contract for default.

17.2.4 CM@Risk must provide Pre-Construction Services, described herein, in a timely manner and consistent with the intent of the most current Drawings and Specifications. CM@Risk must promptly notify City in writing whenever CM@Risk determines any Drawings or Specifications are inappropriate for the Project and/or cause changes in the scope of Work that deviates more than the allowed contingencies within the Baseline Cost Model or requires an adjustment in the Baseline Cost Model, Detailed Cost Estimate, Detailed Project Schedule, GMP Proposals and/or in the Contract Time for the Work, to the extent such as established.

17.2.5 CM@Risk when requested by City, must attend, make presentations and participate as may be appropriate in public agency and or community meetings, relevant to the Project. CM@Risk must provide drawings, schedule diagrams, budget charges and other materials describing the Project when their use is required or appropriate in any such public agency meetings.

17.2.6 Ownership of Work Product. All Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or material, in whatever form created (e.g., electronic or printed) and in all media now know or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

17.2.7 CM@Risk represents to City in completing Pre-Construction Services and providing the reports and analysis required thereunder, that Work can be properly and timely constructed within the GMP Proposal, if accepted. CM@Risk does not assume any design responsibilities unless specifically called for in the scope of work, but CM@Risk will be responsible for their errors, omissions or inconsistencies included in the Work.

17.3 **DETAILED PROJECT SCHEDULE**

17.3.1 The fundamental purpose of the Detailed Project Schedule is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize that Deliverable as a basis for managing and monitoring all member's compliance with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the Detailed Project Schedule requirements. CM@Risk must, however, develop and maintain the Detailed Project Schedule on behalf of and to be used by the Project Team based on input from the other Project Team members. The Baseline Project Schedule must be developed as part of the Baseline Cost Model. The Detailed Project Schedule must use the Critical Path method ("CPM") technique, unless required otherwise, in writing by City. CM@Risk must use scheduling software acceptable to City to develop the Detailed Project Schedule. The Detailed Project Schedule must be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Detailed Project Schedule must indicate milestone dates for the phases once determined. As part of construction phase, City may require CM@Risk to prepare a "resource loaded" schedule for all work, including work performed by Subcontractors, detailing each of the project tasks and the required/anticipated number of personnel per day for each task. CM@Risk must also indicate on the schedule its ability to meet said required/anticipated personnel requirements.

17.3.2 CM@Risk must include and integrate in the Detailed Project Schedule the services and activities required of City, Design Professional and CM@Risk including all construction phase activities based on the input received from City and the Design Professional. The Detailed Project Schedule must define activities as determined by City to the extent required to show: (a) the coordination between preliminary design and various pre-construction documents, (b) any separate long-lead procurements, (c) any permitting issues, (d) any land, right-of-way, or easement acquisition, (e) bid packaging strategy and awards to Subcontractors and Suppliers, (f) major stages of construction, (g) start-up and commissioning, and (h) occupancy of the completed Work by City. The Detailed Project Schedule must include by example and not limitation, proposed activity sequences and durations for design, procurement, construction and testing activities, milestone dates for actions and decisions by the Project Team, preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement (if any), milestone dates for various construction phases, Total Float for all activities to the extent authorized by City, relationships between the activities, City's occupancy requirements showing portions of the Project having occupancy priority, and proposed dates for Final Acceptance.

17.3.3 A Baseline Project Schedule must be initiated with the project Baseline Cost Model and agreed to by the project team at the same time. CM@Risk must update and maintain a detailed Project Schedule throughout pre-construction such that it will not require major changes at the start of the construction phase to incorporate CM@Risk's plan for the performance of the construction phase Work. CM@Risk must provide updates and/or revisions to the Detailed Project Schedule for use by the Project Team, whenever required, but no less often than at the Project Team meetings. CM@Risk must include with such submittals a narrative describing its analysis of the progress achieved to-date vs. the Baseline Project Schedule, including any concerns regarding delays or potential delays, and any recommendations regarding mitigating actions.

17.3.4 If phased construction is deemed appropriate at the time of developing the Baseline Cost Model or during the development of the Detailed Project Schedule, and City approves, CM@Risk must review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work, with the objective of reducing the Project Schedule and/or Cost of the Work. CM@Risk must take into consideration such factors as natural and practical lines of work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability, and any other factors pertinent to saving time and cost.

17.3.5 Long Lead Time Items. As part of developing the Detailed Project Schedule, CM@Risk must identify all long lead time materials, fabrications, equipment, or other items which may impact the Project Schedule and may require early action on the part of the Project Team. Dates for selecting and ordering long lead time items will be included and highlighted in the Detailed Project Schedule

17.3.6 Equipment Plan. Contractor must develop an Equipment Plan that addresses all rental and owned equipment, regardless of whether such equipment will be provided by CM@Risk or subcontractor(s), that will be necessary to construct the Project and the cost of which will be included as a Cost of the Work in the GMP Proposal. The Equipment Plan will seek to minimize the cost of the equipment to City and maximize the efficient and coordinated use of the equipment for completion of the Project. The Equipment Plan will not only include the costs and allowable lease rates for the equipment, but will also include an equipment schedule that will be incorporated into the Detailed Project Schedule and the Schedule of Values submitted with the GMP Proposal.

17.4 **DESIGN DOCUMENT REVIEWS**

17.4.1 CM@Risk must evaluate periodically the availability of labor, materials/equipment, cost-sensitive aspects of the design; and other factors that may create an unacceptable variance to the Baseline Cost Model and/or Baseline Project Schedule.

17.4.2 CM@Risk must recommend, in conjunction with the Project Team, those additional surface and subsurface investigations that, in its professional opinion, are required to provide the necessary information for CM@Risk to construct the Project. These additional investigations, if agreed to be necessary by the Project Manager and the Design Professional, will be acquired by City and copies of the reports will be provided to CM@Risk.

17.4.3 CM@Risk must meet with the Project Team as required to review designs during their development. CM@Risk must familiarize itself with the evolving documents through pre- construction. CM@Risk must proactively advise the Project Team and make recommendations on factors related to construction costs, and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems, and, labor and material availability. CM@Risk must furthermore advise the Project Team on proposed site improvements, excavation and foundation considerations, as well as, concerns that exist with respect to coordination of the Drawings and Specifications. CM@Risk must use established value analysis principles in recommending cost effective alternatives.

17.4.4 CM@Risk must routinely conduct constructability and bid-ability reviews of the Drawings and Specifications as necessary to satisfy the needs of the Project Team. The reviews must attempt to identify all discrepancies and inconsistencies in the Construction Documents

especially those related to clarity, consistency, completeness and coordination of Work of Subcontractors and Suppliers.

17.4.4.1 CM@Risk must evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) module/preassembly design is prepared to facilitate fabrication, transport and installation; (e) sequences of Work required by or inferable from the Drawings and Specifications are practicable; (f) the design has taken into consideration efficiency issues concerning access and entrance to the site, laydown and storage of materials, staging of site facilities, construction parking, and other similar pertinent issues; and (g) the design maintains continued operation of the existing City systems and maintains traffic on adjacent roadways. CM@Risk must also review the Drawings and Specifications to ensure that what is depicted therein can be constructed as designed and must promptly inform the Project Team of any issues.

17.4.4.2 CM@Risk must check cross-reference and complementary Drawings and sections within the Specifications and in general evaluate whether: (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies; (b) named materials and equipment are commercially available and are performing well, or otherwise, in similar installations; (c) Specifications include alternatives in the event a requirement cannot be met in the field; and (d) in its professional opinion, the Project is likely to be subject to Differing Site Conditions.

17.4.4.3 The results of the reviews must be provided to Project Team in formal, written reports clearly identifying all reviewed documents and the discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. CM@Risk must meet with Project Team to discuss any findings and review reports.

17.4.4.4 CM@Risk's reviews must be from a Contractor's perspective, and though it will serve to eliminate/reduce the number of RFIs) and changes during the construction phase, responsibility for the Drawings and Specifications will remain with the Design Professional and not CM@Risk.

17.4.5 It is CM@Risk's responsibility to assist the Design Professional in ascertaining that, in CM@Risk's professional opinion, the Construction Documents are in accordance with applicable Laws, Regulations, or Legal Requirements, building codes, sound engineering principle's rules and regulations. If CM@Risk recognizes that portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, sound engineering principle's rules and regulations, it must promptly notify the Project Team in writing, describing the apparent variance of deficiency. However, the Design Professional is ultimately responsible for the compliance of the Drawings and Specifications with those laws, statutes, ordinances, building codes, rules and regulations.

17.4.6 The Project Team will routinely identify and evaluate using value analysis principles and alternate systems, approaches, design changes that have the potential to reduce Project costs while still delivering a high quality and fully functional Project consistent with the Project Program. If the Project Team agrees, CM@Risk in cooperation with the Design Professional, will perform a cost/benefit analysis of the alternatives and submit such in writing to the Project Team. City, through the Project Manager, will direct which alternatives

will be incorporated into the Project. The Design Professional will have full design responsibility for the review and incorporation of CM@Risk suggested alternatives into the Drawings and Specifications. CM@Risk must analyze the costs and schedule impacts of the alternatives against the Baseline Cost Model and Schedule and provide a recommendation for the Project Team's consideration and City's approval prior to the establishment of the GMP.

17.5 **BASELINE COSTS MODEL, DETAILED COST ESTIMATES, AND SCHEDULE OF VALUES**

17.5.1 At the conclusion of the Master Planning and Programming, if required, CM@Risk will review all available information regarding the design and scope of the Project using CM@Risk's experience in performing similar work, knowledge of similar projects and current and projected construction costs and, based upon that review, must develop a Baseline Cost Model for review by the Project Team and approval by City. Once approved by City, the Baseline Cost Model will be continually referenced as detailed estimates are created as the design progresses throughout Pre-Construction until the final GMP for the entire Project is established. A final GMP for the entire Project must be established and approved by City prior to the start of construction. It is the responsibility of CM@Risk to ensure City has sufficient information to evaluate and approve a final GMP prior to the time necessary to start construction so construction can be completed within the Contract Time. The Project Detailed Cost Estimate will be the best representation from CM@Risk of what the complete functional Project's construction costs will be as indicated by the most current available documents and will be constantly checked against the Baseline Cost Model. CM@Risk must communicate to the Project Team and assumptions made in preparing the Baseline Cost Model. The Baseline Cost Model must support CM@Risk's Detailed Cost Estimates and may be broken down initially as dictated by the available information, as required by City.

17.5.2 After receipt of the Design Professional's most current documents from certain specified pre- construction milestones, CM@Risk must provide a draft Detailed Cost Estimate including a detailed written report detailing any variances to the Baseline Cost Model and Baseline Project Schedule. The Design Professional and CM@Risk will reconcile any disagreements on the estimate to arrive at an agreed upon Detailed Cost Estimate for the construction costs based on the scope of the Project through that specified pre-construction milestone. Pre-Construction milestones applicable to this paragraph are: Master Planning and Programming, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Drawings, If no consensus is reached, City will make the final determination. If the Project Team requires additional updates of the Detailed Cost Estimate beyond that specified in this paragraph, CM@Risk must provide the requested information in a timely manner.

17.5.3 If at any point the Detailed Cost Estimate submitted to City exceeds the previously accepted Baseline Cost Model or previously approved Detailed Cost Estimate agreed to as set forth in Section 17.5.2 above, CM@Risk must make appropriate recommendations to project Team on means/methods, materials, and or other design elements that it believes will reduce the estimated construction costs, such that it is equal to or less than the established Project Team's Baseline Cost Model.

17.5.4 Unless other levels of completion are agreed to in writing in the Construction Documents, at 50% Construction Drawings and included with the associated report, CM@Risk must also submit to the Project Team for review and approval a Schedule of Values that complies

with the following requirements. The Schedule of Values must be based on City standard bid schedule and highlight significant variances from any previously submitted Schedule of Values. The Schedule of Values must be directly related to the breakdowns reflected in the Detailed Project Schedule and CM@Risk's Detailed Cost Estimate. In addition, the Schedule of Values must: (a) detail unit prices and quantity take-offs, (b) detail all other contingencies and unit price Work shown and specified in the detailed design documents.

17.5.5 CM@Risk is to track, estimate/price and address the Project Team's overall project cost issues that arise outside of the Baseline Cost Model and the latest approved Detailed Cost Estimate such as: City generated changes, Project Team proposed changes, alternate system analysis, constructability items and value engineering analysis. The system used to implement this process will be referred to as the Design Evolution Log. This is to be addressed between the Baseline Cost Model and the Master Planning and Programming Detailed Cost Estimate, and then (unless other levels of completion are agreed to in writing in the Construction Documents) between the Detailed Cost Estimates for each of the pre-construction milestones thereafter, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Documents, and the bid packages for all Phases.

17.5.6 Upon request by City, CM@Risk must submit to City a cash flow projection for the Project based on the current updated/revised Detailed Project Schedule and the anticipated level of payments for CM@Risk during the design and construction phases. In addition, if requested by City and based on information provided by City, CM@Risk must prepare a cash flow projection for the entire Project based on historical records for similar types of projects to assist City in the financing process.

17.5.7 Construction Water. CM@Risk must estimate the quantity of water to be used and include the cost thereof in each Detailed Cost Estimate and GMP Proposal provided by City.

17.6 SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS

17.6.1 There are two ways to select Subcontractors and major Suppliers prior to submission of a GMP Proposal: (1) qualifications-based selection; or (2) a combination of qualifications and price. Except as noted below, the selection of Subcontractors/Suppliers is the sole responsibility of CM@Risk. In any case, CM@Risk is solely responsible for the performance of the selected Subcontractors/Suppliers, and for compliance with the requirements of Title 34 of the Arizona Revised Statutes in the selection of a Subcontractors/Suppliers, to the extent applicable. CM@Risk must comply with its Subcontractor Selection Plan submitted with its Statement of Qualifications.

17.6.2 City may approve the selection of a Subcontractor(s) or Suppliers(s) based only on their qualifications when CM@Risk can demonstrate it is in the best interest of the Project. All Work that is performed, after such a qualifications-based selection, for a price that is negotiated by CM@Risk will be billed in accordance with the GMP for actual costs and may be subject to audit by City.

17.6.2.1 Qualifications based selection of a Subcontractor(s)/Supplier(s) should only occur prior to the submittal of the GMP Proposal.

17.6.2.2 If a Subcontractor/Supplier selection plan was submitted and agreed to by City, CM@Risk must apply the plan in the evaluation of the qualifications of a Subcontractor(s) or Supplier(s) and provide City with its review and recommendations.

17.6.2.3 CM@Risk must receive written City approval for each selected Subcontractor(s) and Supplier(s).

17.6.2.4 CM@Risk must negotiate costs for services/supplies from each Subcontractor/Supplier selected under this method.

17.6.3 All Work must be competitively bid unless a Subcontractor or Supplier was selected pursuant to Section 17.6.2 above.

17.6.3.1 CM@Risk must develop Subcontractor and Supplier interest, submit the names of a minimum of three qualified Subcontractors or Suppliers for each trade in the Project for approval by City and solicit bids for the various Work categories. If there are not three qualified Subcontractors/Suppliers available for a specific trade or there are extenuating circumstances warranting such, CM@Risk may request approval by City to submit less than three names. Without prior written notice to City, no change in the recommended Subcontractors/Supplies will be allowed.

17.6.3.2 If City objects to any nominated Subcontractor/Supplier or to any self-performed Work for good reason, CM@Risk must nominate a substitute Subcontractor/Supplier that is acceptable to City.

17.6.3.3 CM@Risk must distribute Drawings and Specifications, and when appropriate, conduct a Pre- Bid Conference with prospective Subcontractors and Suppliers.

17.6.3.4 If CM@Risk desires to self-perform certain portions of the Work, it must request to be one of the approved Subcontractor bidders for those specific bid packages. CM@Risk's bid will be evaluated in accordance with the process identified below. If events warrant and City concurs that it is necessary in order to ensure compliance with the Project Schedule and/or the most recent Detailed Cost Estimate, CM@Risk may be authorized to self-perform Work without bidding or rebidding the Work. When CM@Risk self-performs work without bidding, only the actual costs associated with performing the Work in accordance with the approved GMP will be billed and may be subject to audit by City.

17.6.3.5 CM@Risk must receive, open, record and evaluate the bids; provided, however, that if CM@Risk or one of its affiliates is bidding to self-perform the Work that is the subject of the bid, then the bids must be received, opened, recorded and evaluated by Project Manager instead of CM@Risk. Bids for each category of Work must be opened and recorded at a pre-determined time. The apparent low bidders must be interviewed to determine the responsiveness of their proposals. In evaluating the responsiveness of bid proposals CM@Risk, in addition to bid price, may consider the following factors: past performance on similar projects, qualifications and experience of personnel assigned, quality management plan, approach or understanding of the Work to be performed, and performance schedule to complete the Work. The final evaluation of Subcontractor/Supplier bids must be done with Project Manager in attendance to observe and witness the process. CM@Risk must resolve any Subcontractor/Supplier bid withdrawal, protest or disqualification in connection with the award at no increase in the Cost of Work.

17.6.4 CM@Risk will be required to prepare two different reports on the subcontracting process.

17.6.4.1 Within fifteen days after each major Subcontractor/Supplier bid opening process; CM@Risk must prepare a report for City's review and approval identifying the recommended Subcontractors/Supplier for each category of Work. The report must detail:

(a) the name of the recommended Subcontractor/Supplier and the amount of the Subcontractor/Supplier bid for each sub-agreement; (b) the sum of all recommended Subcontractor/Supplier bids received; (c) and trade work and its cost that CM@Risk intends to self-perform, if any.

17.6.4.2 Upon completion of the Subcontractor/Supplier bidding process, CM@Risk must submit a summary report to City of the entire Subcontractor/Supplier selection process. The report must indicate, by bid process, all Subcontractors/Suppliers contacted to determine interest, the Subcontractors/Suppliers solicited, the bids received and costs negotiated, and the recommended Subcontractors/Suppliers for each category of Work.

17.6.5 The approved Subcontractors/Suppliers will provide a Schedule of Values with their bid proposals, which will be used to create the overall Project Schedule of Values.

17.6.6 If after receipt of sub-bids or after award to Subcontractors and Suppliers, City objects to any nominated Subcontractor/Supplier or to any self-performed Work without any reasonable basis, CM@Risk must nominate a substitute Subcontractor or Supplier, preferably if such option is still available, from those who submitted Subcontractor bids for the Work affected. Once such substitute Subcontractors and Suppliers are consented to by City, CM@Risk's proposed GMP for the Work or portion thereof must be correspondingly adjusted to reflect any higher or lower costs form any such substitution.

17.7 **GMP PROPOSAL**

17.7.1 When a GMP Proposal is submitted for a phase of the Work, the GMP will have a Detailed Cost Estimate of the Costs of the Work (as set forth in Section 15.2) in each phase of the Work that is being proposed plus the current estimate for all other Work. City will not approve the GMP for the phase of work without a total estimate for the complete Project. City may request a GMP Proposal for all or any portion of the Project and at any time during pre-construction. Any GMP Proposals submitted by CM@Risk must be based on and consistent with Baseline Cost Model and the current update/revised Detailed Cost Estimate at the time of the request and include any clarifications or assumptions upon which the GMP Proposal(s) are based.

17.7.2 A GMP Proposal for the entire Project will be the sum of the Cost of the Work, CM@Risk Fee, and General Conditions Cost. CM@Risk guarantees to complete the Project at or less than the final GMP Proposal amount plus approved Change Orders. CM@Risk will be responsible for any costs for expenses that would cause the Cost of the Work actually incurred, including the Construction Fee and General Conditions Costs, to exceed the GMP.

17.7.3 CM@Risk must prepare its GMP Proposal in accordance with City's request for GMP Proposal requirements based on the most current completed Drawings and Specifications at that time, which unless otherwise directed by City in writing, will be at 100% Construction Drawings. CM@Risk must mark the face of each document of each set upon which its GMP Proposal is based. These documents must be identified as the GMP Plans and Specifications. CM@Risk must send one set of those documents to the Project Manager, keep one set and return the third set to the Design Professional.

17.7.4 An updated/revised Detailed Project Schedule, Equipment Plan, and Schedule of Values must be included in any GMP Proposal(s), all of which must reflect the GMP Plans and Specifications the Detailed Project Schedule must be shown in relationship to the Project Schedule and identify any variance to the Baseline Project Schedule. Any such Detailed

Project Schedule updates/revisions must continue to comply with the requirements of Section 17.3.1 through 17.3.5.

17.7.5 GMP Proposals(s) Review and Approval

17.7.5.1 CM@Risk must meet with the Project Team to review the GMP Proposal(s) and the written statement of its basis. In the event the Project Team discovers inconsistencies or inaccuracies in the information presented, CM@Risk must make adjustments as necessary to the GMP Proposal.

17.7.5.2 If during the review and negotiation of GMP Proposals design changes are required, City may authorize and cause the Design Professional to revise the GMP Plans and Specifications to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised GMP Plans and Specification will be furnished to CM@Risk. CM@Risk must promptly notify the Project Team in writing if any such revised GMP Plans and Specifications are inconsistent with the agreed upon assumptions and clarifications.

17.7.6 All portions of or items comprising the GMP Proposal are subject to audit by City, as deemed appropriate by City, including, without limitation, any based upon unit prices or Work to be self- performed by CM@Risk, or its affiliates.

17.8 **PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES**

17.8.1 Requests for monthly payments by CM@Risk for Pre-Construction Services must be submitted monthly and must be accompanied by a progress report, detailed invoices and receipts, if applicable. Any requests for payment must include, as a minimum, a narrative description of the tasks accomplished during the billing period, a listing of any Deliverables submitted, and copies of any Subconsultants' requests for payment, plus similar narrative and listings of Deliverables associated with their Work. Payment for services negotiated as a lump sum will be made in accordance with the percentage of work completed during the preceding month.

17.8.2 In no event will City pay more than seventy-five (75%) of the Contract Price until acceptance of ALL Pre-Construction Services and award of the final approved Construction Services Contract for the entire Project by City Council. If CM@Risk does not prepare a GMP Proposal that is acceptable to City, or the GMP Proposal exceeds the City's Construction Budget, then CM@Risk understands and acknowledges that it will forfeit any right to receive the 25% of the Contract Price being retained by City.

17.8.3 CM@Risk agrees that no charges or claims for costs or damages of any type will be made by it for any delays or hindrances beyond the reasonable control of City during the progress of any portion of Pre-Construction Services specified in this Contract. Such delays or hindrances, if any, will be solely compensated for by an extension of time for such reasonable period and may be mutually agreed between the parties. It is understood and agreed, however, that permitting CM@Risk to proceed to complete any such Services, in whole or in part after the date to which the time of completion may have been extended, will in no way act as a waiver on the part of City of any of their respective legal rights herein.

17.8.4 No compensation to CM@Risk will be allowed contrary to Article I, Chapter I, Title 34 of the Arizona Revised Statutes.

17.8.5 If any service(s) executed by CM@Risk is abandoned or suspended in whole or in part, for a period of more than 180 days through no fault of CM@Risk, CM@Risk is to be paid for the services performed prior to the abandonment or suspension.

17.9 **SURVIVAL OF THE DESIGN SERVICES CONTRACT, DUTIES, OBLIGATIONS AND WARRANTIES**

If the GMP Proposal is accepted by City and a Construction Contract is entered into between City and CM@Risk, the duties, obligations and warranties of CM@Risk under the Pre- Construction Services Contract survive and are incorporated into the resulting Construction Contract.

SECTION 15 – APPENDICES

The following Appendices attached hereto are referenced in the General Conditions and are incorporated herein.

Appendix 1 – Policy Statement for Calculating Delays and Damages
Appendix 2 – Cost Reduction Incentive Proposals for Design Bid Build Contracts
Appendix 3 – Contractor's Affidavit Regarding Settlement of Claims
Appendix 4 – Forms of Performance Bond
Appendix 5 – Forms of Payment Bond
Appendix 6 – Dispute Resolution
Appendix 7 – Certificate of Completion
Appendix 8 – Construction Sign Detail
Appendix 9 – Cost of the Work (Applicable solely to Construction Manager at Risk and Job Order Contracting)
Appendix 10 Landscape Establishment Period

CALCULATING DELAYS AND DAMAGES

The purpose of this policy statement is to establish guidelines and procedures for negotiation between the Contractor and City of Chandler relating to compensation for delays pursuant to Arizona Revised Statutes (A.R.S.) 34-221(F). This policy statement contains notice requirements in addition to those set forth in the Contractor Documents, and will be the Contract Provision contemplated by that statute.

NOTE: As used herein, the term "Engineer" will refer to the City of Chandler City Engineer or his/her designated representative. Nothing in this Policy Statement will be construed to void any provision in the Contract which requires timely notice of delays or provides for arbitration or any other procedure for settlement or provides for liquidated damages.

I. TYPES OF DELAYS:

For the purposes of this document, there are essentially four types of delays encountered by City of Chandler Construction Contractors; excusable/compensable, excusable/non-compensable, non- excusable, and concurrent. Only delays that extend Contract Completion Time set forth in the Contract Document will be considered for issues relating to Contract extensions or additional compensation. All other delays are considered to be activity delays and do not entitle the Contractor to either time extensions or additional compensation. Contract Completion Time will be defined as the date set forth in Maricopa Association of Governments (MAG) Uniform Standard Specification Section 101 and as may be modified by the Contract Documents.

A. Excusable/Compensable:

These are delays caused solely by the City's actions or inactions, are unreasonable under the circumstances, and which were not within the contemplation of the parties to the Contract at or prior to the time of execution of the Contract. Since the Contractor presumably has no control over the events causing the delay, he may be entitled to both contract time extensions and additional compensation for delay damages. Further, he/she may be entitled to additional compensation from the impact of that delay on other work. Examples of excusable/compensable (E/C) delays include: failure to properly locate an underground City-owned utility within 2 feet of the actual location; failure to relocate City-owned utilities far enough in advance of construction in an area where the Contractor is scheduled to work that it delays start or completion of the Contractor's regularly scheduled work; failure to provide City-furnished equipment or materials in a timely manner if required by the Contract; failure to acquire necessary Right-of-Way or Public Utility Easements prior to the Contractor beginning Work in the area; failure to timely return Shop Drawings or other Contract Submittals in accordance with the Contract; unreasonable delay by the City in making decisions which affect critical activities; surveying errors when the City is contractually responsible for providing Project Surveying. This list is not meant to be all inclusive, but is intended merely as examples of the type of City action or inaction which can result in a Contractor's claim for additional time and compensation.

B. Excusable/Non-compensable:

These are delays over which neither the City nor the Contractor had control. Since both parties to the Contract have been potentially damaged by the delay, but neither have caused it, only Time Extensions are warranted. Examples of excusable, non-compensable (E/N) delays include: unusually severe weather; fire; acts of God; failure of non-City owned utilities (SRP, CenturyLink, Cable TV, Southern Pacific Railroad, and Southwest Gas, etc.) to properly or timely locate accurately; failure of non-City owned utilities to relocate in advance of construction; the voluntary or involuntary filing for Bankruptcy protection by a Supplier or Subcontractor which causes the Supplier/Subcontractor to fail to meet a contractual deadline provided the Contractor can provide documentation that he/she executed the required Purchase Orders/Subcontract Agreements and received delivery schedules which, if met, would have eliminated the delay; delays as a result of an incomplete shutdown of a City or non-City owned utility main (the City does not guarantee a complete shutdown). This list also is not necessarily all inclusive but merely indicative of type and class of E/N delays.

C. Non-excusable/Non-compensable:

These are delays caused by the actions or inactions of Contractor or an officer, employee, agent, Subcontractor, Supplier or any other party for whom the Contractor is responsible. Since the Contractor has assumed responsibility for the risks associated with the events that caused the delay, he/she are not entitled to either time extensions or monetary delay damages. All non-excusable delays are also non-compensable. Examples of non- excusable, non-compensable (N/N) delays include: failure to perform by the Contractor, its Subcontractors and/or Suppliers (except as noted in section I.B above); failure to provide adequate labor, materials, and/or equipment on the Project; failure to perform contractually-required coordination with utilities, agencies and other Contractors; failure to notify the Engineer, in writing, of delay impacts within two working days, as required by MAG 104.2.3, or the next work day, as required by MAG 109.8.2; failure to timely submit Shop Drawings; failure to pothole or otherwise visually locate utilities sufficiently ahead of the Work to allow the Engineer to direct corrective action when necessary; delays due to retesting of previously failed work, re-inspection, and/or restaking resulting from faulty workmanship, poor quality control, or lack of compliance with Contract Specifications. Again, this list is not necessarily all inclusive.

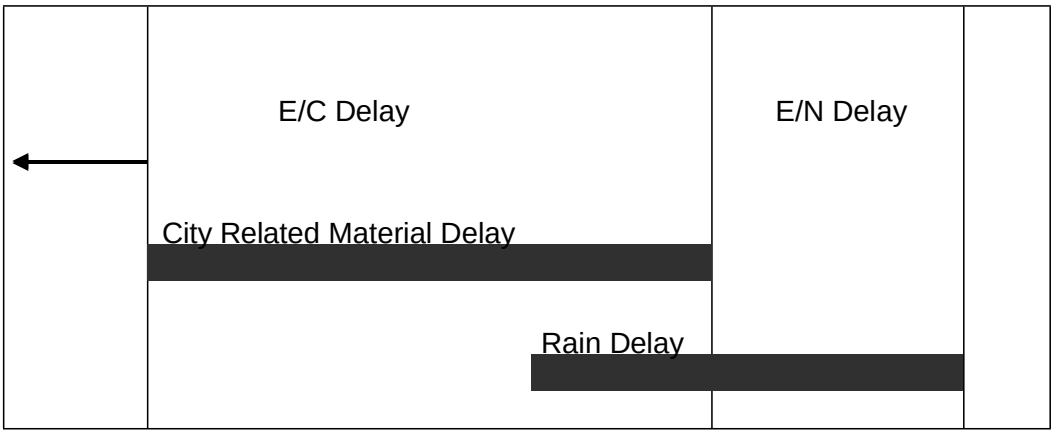
D. Concurrent:

When two or more delays occur simultaneously or overlap, each delay is analyzed separately to determine its impact on the overall project completion date based on when that delay started. Once again, only those delays which actually extend the contract completion time are considered as delays. The concurrent delay is considered an additional delay only to the extent it prolongs the delay to the Contract Completion Time beyond the date that the one it is concurrent with had already delayed that date. For example, if two delays are concurrent, and one is five days long and the second is seven days long, the second concurrent delay will

only extend the Contract Completion Time by two days. The same method of analysis is used when there are multiple concurrent delays. Only those extending the Project Completion Date are considered to be delays for the purposes of this policy. The portion of each concurrent delay that delays the completion of the work is classified in the same manner as described previously for individual delays and being either E/C, E/N or N/N.

An example of a concurrent delay is where the City delays furnishing material, but the Contractor could not have installed it anyway due to unusually severe weather. The effect of the first delaying activity will extend for the full duration and will be considered controlling on the Contractor's schedule. A subsequent, concurrent delay will thereafter only be considered to effect the project completion (if at all) once the first delaying activity has ceased to impact the project completion. In this case, if the unusually severe weather continued and delayed the work after the material was delivered, the first portion of the delay would be classified E/C (delay for material) and the second as E/N (delay due to unusually severe weather). Using the procedure set forth above, the entire concurrent portion would be considered E/C as shown in the chart which follows.

Example of a Concurrent Delay:



II. ANALYZING THE DELAY:

The Contractor must provide all documents required or requested by the Engineer to analyze the delay(s). It is important to understand that, prior to the delay analysis, delays and their impacts are alleged issues. The information the Contractor provides will be compared with the Inspector's Daily Log, Schedules and other available Project information and together they will support or refute that delays occurred and, if so, how they impact other work and the overall project completion. The Contractor's delay in providing these documents will be considered prima facie evidence that either the delay did not occur or it did not impact the Project Completion Date and any claim for time extension or damages will be denied.

The Engineer will accept delay analyses in CPM format, as these may demonstrate to his/her satisfaction whether or not Project Completion has been impacted by a specific event. If the Contractor chooses not to use CPM scheduling procedures, then the burden will be on the Contractor to prove to the Engineer's satisfaction that the Project Completion has been impacted. The procedures below assume that the Contractor is using CPM scheduling methods.

As a minimum the Contractor must provide the following materials to the Engineer:

A. As-Planned Schedule. The initial construction schedule, required by the Contract Documents, will be considered the baseline schedule. It is to the Contractor's advantage that the As-Planned (baseline) Schedule be as detailed as possible in order for delays, as they occur, to be incorporated into the schedule in representative locations. It is also to the Contractor's advantage to use a computer software program to generate the schedule since updated schedules are required monthly by the Contract Documents and since updated schedules are required to support delays and requests for additional compensation for delays. The As-Planned (baseline) Schedule must be presented in network format which clearly shows the interrelationships of the activities. The Contractor must also provide a printout of the activities showing early start, early finish, late start, late finish, duration and float. The activity list printout must also indicate predecessor and successor activities.

B. As-Built Schedules. The as planned (baseline) schedule must be updated with complete progress-to-date information (actualized) up to the date of the start of the alleged delay. Each updated schedule will serve as the as-built schedule for analyzing the alleged delay and provide a new baseline as-planned schedule for the next delay. This process must be repeated for each alleged delay as it occurs. In updating the baseline schedule, the alleged delay must be treated as an activity and inserted into the schedule as a predecessor to the impacted activity (ies). When an activity that has already started is impacted, it is preferable to divide this activity into two parts and show the impact affecting the second part. For schedules which incorporate a time line (or data date), the delay activity must be inserted at the time it actually occurred. Some software scheduling programs have a PAUSE-RESUME feature that can be used to facilitate the requirements. The updated schedule must also be accompanied by a listing of activities as with the baseline schedule. This activities list must contain the alleged delay as an activity showing the duration and the activities which are predecessors and successors to it. When computer generated schedules are used, the Contractor must provide, in electronic media format, the complete data files for the updated schedule that included the delay activity, preferably either in Suretrak or in Microsoft Project. Each electronic media must contain a label identifying the Project name, Contractor's name, program name and version number, data date and project finish date.

C. Other Documents: In order to determine the amount of the alleged delay and if it is compensable, the Contractor must provide all backup documentation relevant to the issue and as required by the Engineer. This documentation must include copies of such items as: purchase orders; delivery schedules; correspondence; memoranda of telephone calls; force account daily worksheets (initialed by the Inspector); payroll data; estimating (bid) worksheets; and any other materials which may be requested by the Engineer.

D. Procedure: Only after receipt of sufficient documentation will the Engineer analyze each alleged delay and determine if it is supported or refuted. If supported, the Engineer will determine if it is excusable or non-excusable, compensable or non-compensable. If the Engineer determines that the delay did not affect the Project Completion, the as-planned schedule, which has been updated to the date of the alleged delay, must be revised to indicate this. If the Engineer determines the delay

did occur but was N/N, then no time extension will be granted. It is imperative that an actualized schedule be submitted as soon as the occurrence of the alleged delay is known. In no event will the Contractor submit an actualized updated schedule later than 60 days after the occurrence of the alleged delay becomes known.

If the Engineer determines the delay did occur and was excusable but, due to a reason listed in section I.B. is non-compensable, he/she will determine the length of the E/N delay and prepare a Change Order to add that time to the Contract. The Engineer's decision will be final.

If the Engineer determines the delay was excusable and compensable, he/she will determine the length of the E/C delay and proceed to review the Contractor's damage calculations in accordance with Section III. The Engineer will check the Contractor's calculations, review the backup documentation provided, and prepare a Change Order to cover both the additional compensation and the time extension. The Engineer's decision on both the time extension and additional compensation for the delay will be final.

If the issue involves a concurrent delay, the Engineer will analyze available data to determine the portions which are E/C, E/N, and/or N/N as described above. The Engineer will proceed to determine the length of E/C delay and verify the Contractor's delay damage calculations, if any are provided. Upon completion of this review, the Engineer will prepare a Change Order for the Contractor's review and signature. The Engineer's decision regarding excusable delay and additional compensation for the delay is final.

The amount of time the Engineer will require to analyze the alleged delay(s) will depend upon the Engineer's workload, the complexity of the delay analysis, availability of supporting data, extent of cooperation by the Contractor, and other factors beyond the Engineer's control. It is entirely possible other delay(s) may occur while the Engineer is analyzing particular claim for delay(s). The Engineer's failure to respond to the Contractor in a set period of time will not be used as the basis for a further delay claim or as justification for extending and existing delay claim. The time required for delay analysis by the Engineer will not be counted against the time allotted for processing Final Payment as required by (MAG Section 109.7(B)) or the release of retention and Final Payment as prescribed by A.R.S. Arizona Revised Statutes §34-221.

III. CALCULATING MONETARY DELAY DAMAGES:

Additional compensation for delay, when authorized by the Engineer, will be calculated in accordance with MAG Section 109.5 ACTUAL COST WORK with the following exceptions:

A. No additional compensation or other monetary damages will be awarded or paid for any loss of anticipated profits by the Contractor, Subcontractors or Suppliers.

B. No additional compensation or other monetary damages will be awarded for home office overhead or non-project general conditions of the Contractor, Subcontractors or Suppliers.

C. Equipment:

1. Contractor-owned equipment rate calculations must be computed in accordance with Section 109.04(D)(3), Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction," 2008 or latest edition and as modified herein. Year and regional adjustment factors must be based on the most recent publications of the Rental Rate Blue Book for Construction Equipment, published by the Equipment Guide-Book Company, San Jose, CA, same as provided by ADOT and in print as of the date of alleged delay. In no event will the compensation for Contractor-owned equipment exceed the purchase price, including tax, paid by the Contractor for the equipment. Compensation will not be allowed for small tools or equipment that show a daily equipment rental rate of less than $5.00 per day or for unlisted equipment that has a value of less than for hundred dollars ($400.00).
2. For leased and rented equipment or equipment not otherwise listed in the Blue Book, rental contracts, or other supporting data will be used to establish the hourly rate. No hourly operating expense will be allowed for delay on standby equipment. In no case will equipment be considered for rental which exceeds the hourly rate for the first eight hours and the daily rate divided by eight for all additional hours as compared with similar equipment listed in the Blue Book. The hourly standby rate must be computed as the lesser of:

    a. Dividing the monthly invoice or rental value by 176 hours per month when the equipment is utilized by the Contractor for more than three weeks;

    b. Dividing the monthly invoice or rental value by 40 hours per week when the equipment is utilized by the Contractor for more than three days.

    In no event will compensation be paid for delay at more than 8 hours per day or 40 hours per week.

3. Except for vehicles used by supervisory personnel, all equipment will be paid at the "standby" rate during the delay period.

4. Equipment brought solely to mitigate the delay (such as pumps, light plants, etc.) may be paid in accordance with ADOT section 109.04(D) (3).

5. The Blue Book regional adjustment will apply in determining rental rates.

D. Material:

Allowable material charges may include, in addition to material incorporated in the work material used to mitigate the delay such as barricades, plates, shoring, cold mix, etc. Except in emergencies the Contractor will not employ such material without the prior written approval of the Engineer.

E. Labor:

1. Except for Supervisory Personnel (Superintendent, Project Engineer, and Foremen), labor wages will not be paid after the first one-half day of

claimed delay or impact. It is expected the Contractor will reassign or layoff unneeded employees.

2. For Foreman wages to be included, that Foreman must have been actively employed on the project prior to the commencement of the delay and be directly responsible for the activity being delayed.

3. Labor burden must be actual amounts incurred but must not exceed the ADOT approved rate.

F. All costs (equipment, material, and labor) must be substantiated by the City of Chandler's Daily Work Reports.

IV. DOCUMENT REQUIRED FOR CLAIM ANALYSIS:

For purposes of reviewing the Contractor's request for additional compensation, it will be required that the Contractor submit the following listed information. Information requested must be prepared on forms which are substantially similar to the City of Chandler's Daily Work Report form, a copy of which is attached as an exhibit.

A. Labor:

For each employee, laborer, and foreman, for which compensation is requested: Name, classification, dates of work performed, daily hours worked, total hours worked, labor rates, labor burden rates, overtime or premium time charges. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Certified payroll reports for the period of work claimed.
2. Accounting of Fringe Benefits – certified by a CPA.
3. Contractor's and Subcontractor's daily field reports and daily diaries.

B. Materials:

For all materials for which compensation is requested, if any, total quantities of materials, prices, extensions and transportation costs must be provided on a daily basis. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Invoices for all materials incorporated.
2. Weigh tickets.
3. Purchase orders.
4. Delivery schedules.
5. Quotes or proposals from manufacturers or supplier.
6. Freight bills, Bills of Lading, or other documentation to show transportation costs.
7. Restocking charges-invoices from vendor.

C. Equipment:

For all equipment, the Contractor must provide the Engineer with the designation, dates and hours of usage, dates and hours of standby, if any, daily hours, total hours,

rental rates and extension for each unit of equipment and machinery. Rental rates will be as established in Section III. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Owned:
   a. Purchase contracts(s).
   b. Depreciation schedule(s).
   c. Invoices for fuel, lube, repairs and other operating costs.

2. Leased:
   a. Lease agreement with hourly rate, overtime rate, double shift rate, etc.
   b. Invoices or other documentation showing hours worked on a daily basis.

D. Subcontractors/Owner-Operators:

In the event the Contractor submits a claim which includes requests for compensation for Subcontractors of Owner-Operators, the same information requested of the Contractor must be provided by the Subcontractor/Owner-Operator. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Bid/Estimate work sheets and/or spreadsheets.
2. Subcontract Agreements or Agreements with Owner-Operator.
3. All invoices and billing statements received from the Subcontractor/Owner-Operator which relates to the amount requested.

E. Miscellaneous:

Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Evidence of payment for bonds and insurance premiums (MAG 109.5.6).
2. Taxes – unless the Contractor can show otherwise, taxes are reimbursable at 65% of the total cost (less bonds and insurance).

V. TIME LIMIT ON SUBMISSIONS OF CLAIM FOR DELAY OR IMPACT DAMAGES:

No claims for delay or impact damages will be considered or allowed more than 45 days after the event or occurrence which the Contractor claims gives rise to the delay or impact. In no event will a claim for delay or impact damages be considered after submission by the Contractor of the Final Payment Request.

COST REDUCTION INCENTIVE PROPOSALS FOR DESIGN BID BUILD CONTRACTS

The Contractor may submit to the Engineer proposals for modifying the Plans, Specifications, or other requirements of the Contract for the sole purpose of reducing the total cost of Project construction. The proposals must not impair in any manner the essential functions or characteristics of the project; including but not limited to service life, economy of operations, ease of maintenance, desired appearance, compatibility with existing or planned equipment, standardization of systems, or design and safety standards.

It must not be inferred from this Policy that the Engineer is required to consider any proposal submitted.

Submissions that propose changes in the basic design of a bridge, propose changes in pipe line size, materials, bedding conditions, pipe specifications; or that propose any change in pavement design will not be considered.

Proposals submitted pursuant to this Policy will be identified as Cost Reduction Incentive Proposals. They must be submitted in writing and, at a minimum, contain the following.

1. Complete the attached or similar cost reduction incentive proposal form.

2. A description of both the existing Contract Requirements for performing the work and the proposed changes.

3. All Engineering Drawings and computations necessary for the thorough and expeditious evaluation.

4. An itemization of the existing Contract Requirements that must be changed if the Proposal is adopted and a recommendation as to the manner in which the change should be made.

5. A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed changes, including the cost of developing and implementing the changes.

6. The Contract items affected by the proposed changes and any variations in quantities resulting from the changes.

7. An objective estimate of any effects the proposal will have on collateral cost to the City, costs of related items, and cost of maintenance and operation.

8. A statement as to the effect that the Proposal will have on the time for the completion of the Project.

9. A statement as to the time by which a Change Order adopting the Proposal must be executed or when the Engineer must have given verbal approval.

Proposals will be processed expeditiously; however, the City will not be liable for any delay in acting upon any Proposal nor for any failure to accept any Proposal pursuant to this Special Provision.

The Engineer will be the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of the Proposal. The Contractor will be notified in writing by the Engineer as to whether his/her Proposal has been accepted. The decision by the Engineer is final.

When the City deems such action to be appropriate, it reserves the right to require the Contractor to share equally in the cost to the City of investigating, evaluating, and processing the proposal as a condition for the consideration of such Proposal. Such cost must be shared whether the Proposal is accepted or rejected. When such a condition is imposed, the City will estimate these costs and the Contractor must indicate his acceptance thereof in writing. Such acceptance will authorize the City to deduct the Contractor's share of the costs from any monies due or that may become due to the Contractor under the Contract.

If the Contractor's Proposal is accepted in whole or in part, the necessary Contract Modifications and Contract Price Adjustments will be affected by the execution of a Change Order which will specifically state that it is executed pursuant to this Special Provision.

The Contractor must continue to perform the work in accordance with the requirements of the Contract until a Change Order incorporating the Proposal has been executed or until he/she has been given verbal approval by the Engineer that his/her Proposal has been accepted. If the Change Order has not been executed or he/she has not been given verbal approval on or before the date specified on the attached cost reduction incentive proposal form or on or before such other date as the Contractor may have subsequently specified in writing, the Proposal may be deemed to be rejected.

The executed Change Order will incorporate the changes in the Plans, Specifications, or other requirements of the Contract which are necessary to permit the Proposal, or such part of it which has been accepted, to be put into effect, and will include any condition – upon which the City's approval thereof is based, if such approval is conditional. The executed Change Order may also extend the time for the completion of the Contract if such an extension has been deemed to be warranted by the Engineer as a result of his evaluation of the Proposal.

The executed Change Order will also establish the estimated net savings in the cost of performing the Work attributable to the Proposal effectuated by the Change Order. In determining the net savings, the right is reserved to the Engineer to disregard the Contract bid prices if, in his/her judgment, such prices do not represent a fair measure of the value of the Work to be performed or to be deleted. The net savings will be established by determining the Contractor's cost of performing the Work, taking into account his/her cost of developing the Proposal and implementing the change, and reducing this amount by any ascertainable collateral costs to the City. The executed Change Order may provide that the Contractor be paid 50 percent of the estimated net savings amount.

The executed Change Order may also provide for the adjustment in Contract prices. Contract prices may be adjusted by subtracting the City's share of the accrued net savings.

The amount specified to be paid to the Contractor in the executed Change Order which effectuates a Cost Reduction Proposal will constitute full compensation to the Contractor for the Cost Reduction Proposal and the performance of the work thereof pursuant to the said Change Order.

Upon acceptance of a Cost Reduction Incentive Proposal, any restrictions imposed by the

Contractor on its use or on disclosure of the information will become void, and the City thereafter will have the right to use all or any part of the Proposal without obligation or compensation of any kind to the Contractor.

COST REDUCTION INCENTIVE PROPOSAL FORM

TO: CIP City Engineer

FROM:

PROJECT NAME: [TITLE]

PROJECT NUMBER: [####]

DATE:

Summary of Change (Brief description of proposed change including advantages and disadvantages):

ESTIMATED COST SUMMARY (Attached detailed estimate):

A.	Original Cost:	$
B.	Proposed Cost:	$ _____
C.	Construction Savings (A-B):	$ _____
D.	Gross Savings (Included OH %, Bond %)	$ _____
E.	Contractor Implementing	$_____
F.	City Implementing Cost:	$_____
	Reduction in Contract Price (C+D-E-F) x 50%:	$ _____

Date by which a Change Order must be issued so as to obtain maximum cost reduction:

CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona
Date _____

Project Name: [TITLE]
City Project No.: [####]

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of $_____, as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20_____.

_____
CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

_____
Notary Public

_____
My Commission Expires

PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____(hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, 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 _____ day of _____, 20___ for construction of **[TITLE]**, **[####]** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice of the Surety, and during the life of any guaranty required under the contract, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), as Principal, and _____(hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, the 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 _____ day of _____, 20___ for construction of **[TITLE]**, **[####]** 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 Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said contract, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

DISPUTE RESOLUTION

A. INFORMAL DISPUTE RESOLUTION

The parties to the Contract agree that time is of the essence in relation to performance of the Contract and completion of the Project, therefore any and all disputes in relation to the Contract will initially be referred to the Project Manager, the Design Professional Representative and/or the Contractor Representative as applicable to the dispute, for immediate resolution. If, after good faith efforts to reach a resolution, none is reached, any party to the dispute may submit the dispute to the Dispute Resolution Representative ("DRR") process set forth below, which is intended to be an expedited process.

B. DISPUTE RESOLUTION REPRESENTATIVE ("DRR") PROCESS

1. The Parties under the Contract agree that all claims and disputes in relation to the Project which are not resolved in the ordinary course of the Project ("Claim" or "Claims") will, as a prerequisite to any mediation, or litigation of the Claim, first be submitted for resolution between the designated Dispute Resolution Representatives of the Parties as set forth herein (the "DRR Process").

2. The DRR Process will be initiated through service of a DRR Notice as set forth below:

   a. For claims by the Contractor or the Design Professional, the DRR Process will be initiated by the party asserting the claim serving written notice on the City setting forth in detail: (i) the basis for the claim; (ii) the effect of the Claim upon the construction of, and/or Project Schedule for, the Project;
   (iii) the specific relief requested, the amount thereof, and how such was calculated; (iv) the parties involved in the Claim, and how they are involved; (v) the specific contract provisions in the Contract Documents (including, if applicable, drawings and specifications) which apply; and (vi) efforts made to date to resolve the Claim.

   b. For claims by the City, the DRR process will be initiated by the City providing written notice to the other parties of the basis and amount of its claim, the parties involved in the Claim, and how they are involved, the provisions in the Contract Documents that apply, and the relief requested.

   c. The DRR Notice will be hand-delivered and e-mailed to the other parties' designated Dispute Resolution Representatives.

3. The other parties will respond in writing to the DRR Notice ("DRR Response") within ten (10) calendar days of receipt of the DRR Notice, setting forth those items set forth in the DRR Notice that they agree with, dispute, and/or have questions concerning. The DRR Response will be hand-delivered and e-mailed to the other parties' Dispute Resolution Representatives.

4. The designated Dispute Resolution Representatives for the Parties to the claim will then meet as soon as possible and in any event within twenty (20) calendar days of submission of the DRR Notice (regardless of whether a DRR Response has been submitted by all parties involved in the dispute), at a mutually agreed upon time and place, to attempt to resolve the Claim based upon the DRR Notice and DRR Response.

5. At any time after the first meeting required above, either party may terminate the DRR Process by written notice to the other party.

6. The parties may agree, in writing, to extend or modify the time limits or other provisions of the DRR process in relation to a specific pending Claim.

7. Unless otherwise designated in a written notice to the other parties, the City and the representatives of the Contractor and of the Design Professional will act as the parties' designated Dispute Resolution Representatives.

8. If a resolution of the Claim is reached, that resolution must be set forth in writing and must be signed by the Parties' designated Dispute Resolution Representative. If the resolution involves a change in any Contract Documents, the Contract Price, the Project Schedule, or any other change requiring a written Change Order or Amendment, the parties must execute an appropriate written Change Order or Amendment pursuant to the terms of the Contract Documents.

C. MEDIATION

1. Unless extended by written agreement of the parties involved in the dispute, any Claim not resolved through the DRR process set forth above within five (5) calendar days after the meeting required under B (4) above, or after the DRR is terminated pursuant to ¶ B (5) above, whichever is earlier, will be submitted to mediation as a condition precedent to litigation by either party.

2. The mediation will be commenced by written demand upon the other party for mediation. If the parties cannot agree upon a mediator within ten (10) calendar days of the written demand, either party may make a request to the Civil Presiding Judge of the Maricopa County Superior Court to appoint a mediator. The mediation will occur within forth (40) calendar days of the written demand for mediation, unless the parties agree, in writing, to a longer period of time.

3. The qualifications for the mediator will be that he/she be: (a) an experienced mediator, arbitrator or litigator of construction disputes; and (b) having engaged a significant portion of his/her time involving and/or resolving construction disputes for at least the past five (5) years.

4. Each party will provide to the other party and the mediator all of the information and documentation required under B(1) and (2) above, together with any additional information and documentation which the party believes relevant. In addition, the parties will exchange, and provide to the mediator such additional memoranda, information and/or documentation, as the

mediator may request, and in the form and at such times, as the mediator may direct.

5. The parties will share the mediator's fee and any filing fees equally. The mediation will be held in Chandler, Arizona, unless another location is mutually agreed upon. Agreements reached in mediation will be specifically enforceable in any court having jurisdiction thereof.

D. LITIGATION

Any claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those claims waived as provided for in the Contract Documents, must be resolved through litigation in the Maricopa County, Arizona Superior Court.

CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CERTIFICATE OF COMPLETION

PROJECT NAME:	**[TITLE]**		
CITY PROJECT NO.:	**[####]**		
If Federally Funded:			
FEDERAL NO.:	**[####]**	**TRACS NO:**	**[####]**

(*This section to be completed by Prime*)
I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER FOR THIS PROJECT HAVE BEEN DELIVERED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE CONTRACTOR UNDER THE CONTRACT HAVE BEEN COMPLETED AS OF THE COMPLETION DATE LISTED HERE:

COMPLETION DATE:	

PRIME

FIRM NAME:			
PRINCIPAL:			
TITLE:			
SIGNATURE:		DATE:	

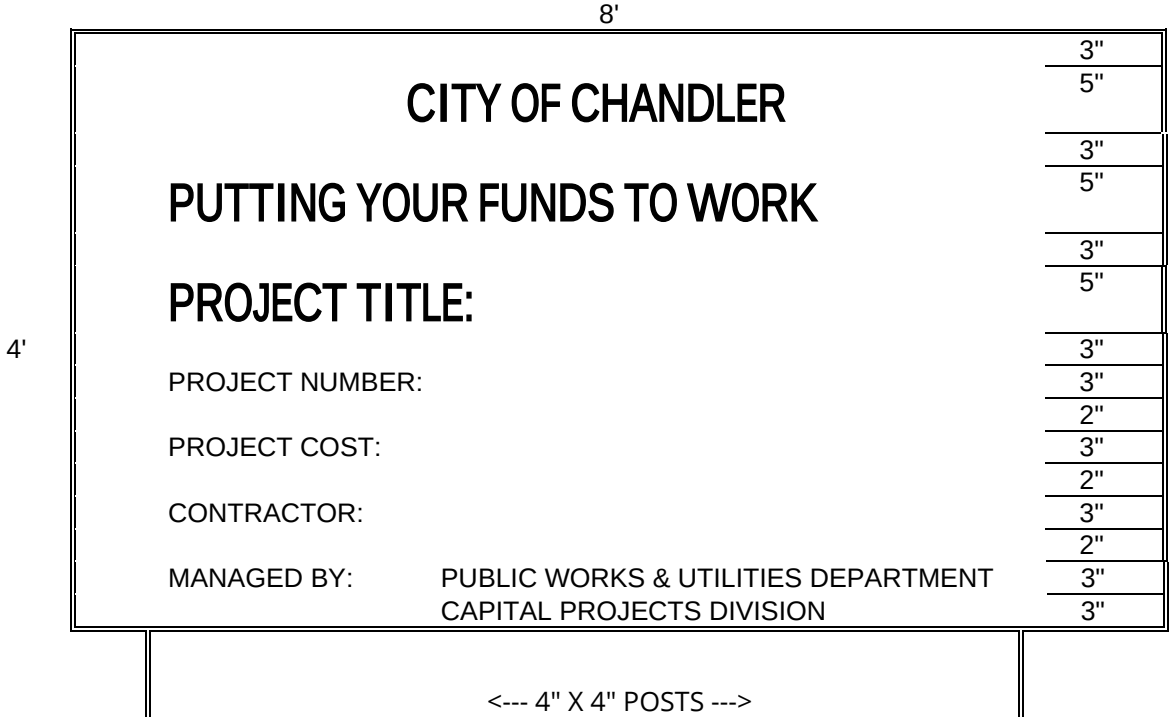
CERTIFIED BY ENGINEER/CONSULTANT:

FIRM NAME:			
SIGNATURE:		DATE:	

PROJECT ACCEPTED BY CITY OF CHANDLER:

FIRM NAME:			
SIGNATURE:		DATE:	

CONSTRUCTION SIGN DETAIL



NOTES:

SIGN(S) MUST BE FURNISHED AND ERECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION. POSTS MUST BE ANCHORED A MINIMUM OF TWO FEET INTO THE GROUND. BOTTOM OF SIGN MUST BE A MINIMUM OF FOUR FEET ABOVE THE GROUND.

TYPICAL PROJECT IDENTIFICATION SIGN FOR GENERAL PROJECTS MUST BE NON-REFLECTORIZED GREEN BACKGROUND, AND NON-REFLECTORIZED WHITE LETTERS AND NUMERALS.

ONE SIGN MUST BE ERECTED FOR BUILDINGS AND OTHER LIMITED AREA SINGLE SITES. FOR MULTIPLE SITES, ONE SIGN MUST BE ERECTED AT EACH SITE.

FOR LINEAR PROJECTS ONE HALF MILE OR LONGER, PLACE ONE SIGN AT EACH END OF THE PROJECT.

COST OF THE WORK

(APPLICABLE SOLELY TO CONSTRUCTION MANAGER AT RISK AND JOB ORDER CONTRACTING)

SECTION 1 – COSTS TO BE REIMBURSED

1.1 Cost of the Work

The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs must be at rates not higher than the standard paid at the place of the Project except with prior consent of City. The Cost of the Work will include only the items set forth in this Section 1.

1.2 Labor Costs

1.2.1 Wages of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with City's approval, at off-site workshops. Cost to be reimbursed will be the actual wages paid to the individuals performing the work.

1.2.2 Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site with City's approval. No Contractor personnel stationed at the Contractor's home or branch offices will be charged to the Cost of the Work. Non-field office based Contractor management and support personnel are expected to provide service and advice from time to time throughout the job and his/her time devoted to Project matters is considered to be covered by the Contractor's Fee.

1.2.3 Wages and salaries of Contractor's supervisory or administrative personnel who would normally be stationed at the field office in accordance with Section 1.2.2 but who become engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of his/her time required for the Work. Employee bonuses and/or costs associated with Employee Stock Ownership Plans ("ESOP") will not be considered reimbursable labor or labor burden costs and will be considered non-reimbursable costs considered to be covered by the Contractor's Fee.

1.2.4 Costs paid or incurred by Contractor for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holiday, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Subparagraphs 1.2.1 through 1.2.3.

1.2.4.1 Cost of the Work will include the actual net cost to Contractor for worker's compensation insurance attributable to the wages chargeable to the Cost of Work per this Agreement. The actual net cost of worker's compensation must take into consideration all cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, any applicable weekly maximums, etc. Contractor may charge an estimated amount for worker's compensation insurance costs, but will make appropriate cost adjustments to actual costs within 45 days of receipt of actual cost adjustments from the insurance carrier.

1.2.4.3 Overtime wages paid to salaried personnel (if approved in advance in writing by City) will be reimbursed at the actual rate of overtime pay paid to the individual. No time charges for overtime hours worked on the Project will be allowed if the individual is not paid for the overtime worked.

1.2.4.4 Any overtime premium or shift differential expense to be incurred by Contractor for hourly workers will require City's advance written approval before the incremental cost of the overtime premium or shift differential will be considered a reimbursable cost. If the Contractor is required to work overtime as a result of an inexcusable delay or other coordination problems caused by the Contractor or anyone he/she is responsible for, the overtime premium and/or shift differential expense portion of the payroll expense and related labor burden costs will be considered as cost not to be reimbursed.

1.2.4.5 Reimbursable labor burden costs will be limited to payroll taxes, worker's compensation insurance, the employer's portion of union benefit costs for union employees working on the Project, and the actual verifiable fringe benefit costs incurred by Contractor for non-union individuals working on the Project subject to the following maximum percentages for the following reimbursable non-union fringe benefit costs. The following maximums (as a percentage of reimbursable actual wages by individual) will apply for each of the following types of fringe benefit costs specifically attributable to each of the non-union personnel working on the Project:

- Medical Insurance, Dental, Life & AD&D Insurance: 12.00%
- Holiday, vacation and other paid time not worked: 10.00%
- Pension Plan Contributions to Vested Employee Account, Simplified Employee Pension Plans, or 401K matching plans (Note: ESOP related costs are covered by the Contractor Fee) 10.00%

For non-union personnel, no other fringe benefit costs (other than the three specific categories listed immediately above, will be considered reimbursable Cost of Work. Any labor burden costs that are in excess of the amounts considered reimbursable or are otherwise not considered reimbursable under the terms of this agreement are intended to be covered by the Contractor Fee.

1.3 Subcontract Costs

1.3.1 Payments made by Contractor to Subcontractors in accordance with the requirements of the subcontracts.

1.3.2 For Scope of Work Bid Packages typically performed by Subcontractors, Contractor may "self- perform" such work on an actual cost basis subject to an agreed upon Guaranteed Maximum Price for the "self-performed work". The Contractor must, unless agreed to by City in writing, bid his/her proposed guaranteed Maximum Price for the work to be "self-performed" against at least three other interested trade Contractors. All savings under any such Subcontract for "self-performed work" must be applied to reduce the Cost of Work under the Contract and the Guaranteed Maximum Price. For purposes of defining "self-performed work" subject to this provision, any division of Contractor, or any separate Contractor or Subcontractor that is partially owned or wholly owned by the Contractor or any of his/her employees or employee's relatives will be considered a related party entity

and will be subject to this provision regarding "self-performed work". No self-performed work will be allowed to be performed on a Fixed Price basis.

1.3.3 Contractor (with respect to its Suppliers, Subcontractors and all lower tier Subcontractors) must provide City advance written notice and must obtain City's approval for any proposed Subcontract Change Order, Material Purchase Order, or other financial commitment in an amount in excess of $5,000 prior to placing such order or entering into such agreement (regardless of whether or not any such commitment will affect the prime contract Guaranteed Maximum Cost). It is agreed that sums applicable to any Subcontract Change Order, Purchase Order or other financial commitment entered into in violation of the above notice and approval requirement will not be included in the amounts owning to Contractor, Subcontractors or Suppliers whether as Costs of the Work or as reasonable termination costs in the event of termination.

1.4 Costs of Material and Equipment Incorporated in the Completed Construction

1.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

1.4.2 Costs of materials described in the preceding Subparagraph 1.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, in any, will become City's property at the completion of the Work or, at City's option, may be sold by the Contractor. Any amounts realized from such sales must be credited to City as a deduction from the Cost of Work.

1.4.3 Proceeds from the sale of recyclable materials, scrap, waste, etc. will be credited to job cost.

1.5 Costs of Other materials and Equipment, Temporary Facilities and Related Items

1.5.1 Costs, including transportation and storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers, that are provided by the Contractor at the site and fully consumed in the performance of the Work; and cost (less salvage value) of such items if not fully consumed, whether sold to others or retained by Contractor. Cost for items previously used by Contractor will mean fair market value.

1.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by Contractor at the site, whether rented from Contractor or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented will be subject to City's prior written approval.

1.5.2.1 The Projected usage for each piece of equipment to be rented for use on the Project and the estimated total rentals must be considered by Contractor before the piece of equipment is rented so that an appropriate rent versus buy decision can be made. Purchased equipment must be considered "job owned". At the completion of the Project, Contractor must transfer title and possession of all remaining job-owned equipment to City, or Contractor may keep any such equipment for an appropriate fair market value credit to job cost, which will be mutually agreed to by City and Contractor.

1.5.2.2 Each piece of equipment to be rented must have hourly, daily, weekly and monthly rates and the most economical rate available will be reimbursed based on the circumstances of actual need and usage of the piece of equipment while it is stationed at the jobsite. When the piece of equipment is no longer needed for the work, no rental charges will be reimbursed if the piece of equipment remains at the jobsite for the convenience of Contractor.

1.5.2.3 Equipment Rental Rates

1.5.2.3.1 Compensation for equipment used on the Project will be paid in accordance with the Equipment Plan submitted by Contractor in the accepted GMP Proposal and no payments will be made in excess of the rates set forth in the Equipment Plan, or actual documented costs, whichever is less.

1.5.2.3.2 All equipment rental rates and costs are subject to City's right to audit when submitted as part of Equipment Plan and/or at any time during the Project.

1.5.2.4 The aggregate rentals chargeable for each piece of Contractor owned tools or equipment must not exceed 50% of the fair market value of such equipment at the time of its commitment to the Work. The original purchase price and date of purchase of the equipment will be documented with a copy of the purchase invoice for the piece of equipment. Such aggregate limitations will apply and no further rentals will be charged even if a piece of equipment is taken off the job and is later replaced by a similar piece of equipment. For purposes of computing the aggregate rentals applicable to aggregate rental limitations, rental charges for similar pieces of equipment will be combined if the pieces of equipment were not used at the same time.

1.5.2.5 Fair market value for used material and equipment as referred to in the Contract Documents will mean the estimated price a reasonable purchaser would pay to purchase the used material or equipment at the time it was initially needed for the job. Note: This is usually lower than the price a reasonable purchaser would pay for similar new construction material or construction equipment.

1.5.2.6 All losses resulting from lost, damaged or stolen tools and equipment will be the sole responsibility of Contractor, and not City, and the cost of such losses will not be reimbursable under the Contract.

1.5.2.7 Contractor will be required to maintain a detailed equipment inventory of all job-owned equipment (either purchased and charged to job cost or job-owned through aggregate rentals) and such inventory must be submitted to City each month. For each piece of equipment, such inventory should contain at a minimum (1) original purchase price or acquisition cost (2) acquisition date (3) approved Fair Market Value at the time the piece of equipment was first used on the job and (4) final disposition.

1.5.2.8 All costs incurred for minor maintenance and repairs will be reimbursed at actual cost. Such costs include routine and preventative maintenance, minor repairs and other incidental costs. Repairs and/or replacement of a capital nature are considered to be covered by the rental rates. Major repairs and overhauls are not considered routine and ordinary; consequently such costs are not reimbursable and are intended to be covered by the rental

rates.

1.5.3 Costs of removal of debris from the Site.

1.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

1.5.5 That portion of the reasonable expenses of Contractor's personnel incurred while traveling in discharge of duties connected with the Work.

1.5.5.1 No travel expenses will be reimbursed to Contractor's representatives unless Project related travel required them to travel to a destination more than 100 miles from the Project location. Any travel involving airfare will require advance written approval by an authorized City's representative.

1.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, if approved in advance by the City.

1.5.7 Reproduction costs will be the actual costs of reproduction subject to a maximum of five cents ($.05) per square foot for prints and a maximum of five cents ($.05) per 8 ½ by 11-inch page for offset print or photo copied contract documents, specifications, etc. Telephone costs will be the actual costs paid to the third party telephone company for the field office telephone.

1.6 Miscellaneous Costs

1.6.1 That portion of insurance and bond premiums that can be directly attributed to the Contract. The City will reimburse Contractor for contractually required bond at time of first pay application for GMP and Cost-Based contracts upon receipt of proof of payment from the Contractor. If the Contractor completes Work for less than the Contract Price, Contractor must credit the City a pro- rated amount for the unused portion of the bond payment

1.6.1.1 Contractor's actual cost for insurance will be considered to be included within the Maximum limit for General Conditions Costs. All premiums for any insurance and bonds required for the Project must reflect the net actual costs to Contractor after taking into consideration cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, refunds, etc.

1.6.1.2 The amount to be reimbursed to Contractor for all contractually required insurance will be actual costs not to exceed a total of 2% of the Contract Value, unless Contractor establishes to City's satisfaction that the actual cost is higher and City agrees to such actual higher cost in writing. If Contractor's cost of contractually required insurance is greater than the amount agreed to be reimbursed per this Contract Provision, the difference will be considered to be covered by the Contractor's Fee. The City will reimburse Contractor for contractually required insurance on a monthly basis for GMP and Cost-Based contracts. If Contractor can demonstrate substantial savings by paying for all insurance in advance, the City may agree to reimburse all insurance costs at time of first pay application

for GMP and Cost-Based contracts with proof of payment from Contractor.

1.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work.

1.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which Contractor is required by the Contract Documents to pay.

1.6.4 Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work and which do not fall within the scope of ¶ 1.7.3 below.

1.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suites or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against Contractor resulting from such suites or claims and payments of settlements made with City's consent. However, such costs of legal defenses, judgments and settlements must not be included in the calculation of the Contractor's Fee or subject to the Guaranteed Maximum Price.

1.6.6 Data processing costs related to the Work. However, any such data processing costs will be limited to the cost of personal computer hardware used at the field office in the normal day to day administration, management and control of the Project. The aggregate charges for any such hardware must not exceed the Fair Market Value of the hardware at the time it was brought to the field office. If the total charges for any particular piece of hardware reach an amount equal to the Fair Market Value, that particular piece of hardware must be turned over to City whenever it is no longer needed for the Project. If Contractor elects to keep the particular piece of hardware, the job costs must be credited with a mutually agreeable amount which will represent the Fair Market Value of the particular piece of hardware at the time it was no longer needed for the job. Software or other costs associated with the use of computer programs will not be considered to be a reimbursable cost and will be considered to be covered by the Contractor's Fee.

1.6.7 Deposits lost for causes other than Contractor's negligence or failure to fulfill a specific responsibility to City as set forth in the Contract Documents.

1.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between City and Contractor, reasonably incurred by Contractor in the performance of the Work and with City's prior written approval; which approval will not be unreasonably withheld.

1.6.9 Expenses incurred in accordance with Contractor's standard personnel policy for relocation and temporary living allowances of personnel required for the Work, if pre-approved by City in writing. If City authorizes the reimbursement of relocation costs, the reimbursable relocation expenses will be limited to a maximum of $50,000 per person. Any relocation cost incurred by Contractor in excess of the amount reimbursed by City will be considered to be covered by the Contractor's Fee.

1.7 Other Costs and Emergencies

1.7.1 Other costs incurred in the performance of the Work if and to the extent approved in

advance in writing by City.

1.7.2 Costs due to emergencies incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property.

1.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by Contractor, Subcontractors or Suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of Contractor and only to the extent that the cost of repair or correction is not recoverable by Contractor from insurance, sureties, Subcontractors or Suppliers.

1.8 Related Party Transactions

1.8.1 The term "related party" will mean a parent, subsidiary, affiliate or other entity having common ownership or management with Contractor; any entity in which any stockholder in, or management employee of, Contractor owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of Contractor. The term "related party" includes any member of the immediate family of any person identified above.

1.8.2 If any of the costs to be reimbursed arise from a transaction between Contractor and a related party, Contractor must notify City in writing of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If City, after such notification, authorizes in writing the proposed transaction, then the cost incurred will be included as a cost to be reimbursed, and Contractor must procure the Work, equipment, goods or service from the related party, as a Subcontractor. If City fails to authorize the transaction, Contractor must procure the Work, equipment, goods or service from some person or entity other than a related party.

SECTION 2 – COSTS NOT TO BE REIMBURSED

2.1 The Cost of Work must not include:

2.1.1 Salaries and other compensation of Contractor's personnel stationed at Contractor's principal office or offices other than the site office, except as specifically provided in Subparagraphs 1.2.2 and 1.2.3.

2.1.2 Expenses of Contractors' principal office and offices other than the site office.

2.1.3 Overhead and general expenses, except as may be expressly included in Section 1.

2.1.3.1 Costs of Contractor's home office computer services or other outside computer processing services will be considered overhead and general expense. Accordingly, Contractor should not plan to perform any such computer related services or alternatives at the field office when such services or functions can be performed at Contractor's home or branch offices, or other outside service locations.

2.1.4 Contractor's capital expenses, including interest on Contractor's capital employed for the Work.

2.1.5 Rental costs of machinery and equipment, except as specifically provided in subparagraph 1.5.2.

2.1.6 Except as provided in Subparagraph 1.7.3 of the Agreement, costs due to the negligence or failure to fulfill a specific responsibility of Contractor, Subcontractors and Suppliers or anyone directly or indirectly employed by any of them or for whose acts of them may be liable.

2.1.7 Any cost not specifically and expressly described in Section 1.

2.1.8 Costs, other than costs included in Change Orders approved by City that would cause the GMP to be exceeded.

SECTION 3 – DISCOUNTS, REBATES, REFUNDS AND SAVINGS

3.1 Cash discounts obtained on payments made by Contractor will accrue to City if (1) before making the payment, Contractor included them in an Application for Payment and received payment therefore from City, or (2) City has deposited funds with Contractor with which to make payments; otherwise, cash discounts will accrue to Contractor. Trade discounts, rebates, refunds and amounts received from sales or surplus materials and equipment will accrue to City, and Contractor must make provisions so that they can be secured.

3.1.1 Cost of the Work will be credited with all insurance policy discounts, performance and payment bond rebates or refunds, refunds or return premiums from any Subcontractor default insurance, refunds or rebates from any Contractor controlled insurance programs applicable to the Project, merchandise rebates of any nature, refunds of any nature, insurance dividends; and a portion of any volume rebates or free material credits earned with purchase of material or other goods and services charged to the job.

3.1.2 "Cash" discounts which may accrue to Contractor will be limited to a maximum of 1.5% of invoice cost. Any portion of "Cash" discounts greater than 1.5% will automatically accrue to City if Contractor is eligible to take advantage of the discounts.

3.2 Amounts that accrue to City in accordance with the provisions of Paragraph 3.1 will be credited to City as a deduction from the Cost of the Work.

3.3 Any and all savings on the GMP, or any separately guaranteed items comprising the GMP, will belong to City, subject to any express right in the Contract for Contractor to share in savings. Savings are subject to City's right to audit, and may be audited separately.

SECTION 4 – GENERAL CONDITIONS COSTS

4.1 General Conditions Costs may include, but are not limited to, the following types of costs incurred by Contractor during construction of the Work to the extent they are reimbursable Costs of the Work as delineated above: payroll costs for Work conducted at the site, payroll costs for the superintendent and full-time general foremen, payroll costs for management

personnel resident and working on the site workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), administrative office personnel, costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the site, costs of liability insurance premiums not included in labor burdens for direct labor costs, costs of bond premiums, costs of consultants not in the direct employ of Contractor or Subcontractors, fees for permits and licenses.

4.2 General Conditions Costs may be paid on a percentage of the Contract Price or on a lump/stipulate sum basis as set forth in the Contract. All costs included in the General Conditions Costs will not be separately invoiced to or paid by City.

4.3 The total amount of General Conditions Costs for the Work may be divided by the number of days allowed for performance of the Work, to determine a fixed daily rate for General Conditions Costs that may be used in computing the General Conditions Costs allocated to any period of time, or for any adjustments in the General Conditions Costs agreed to in writing by City.

LANDSCAPE ESTABLISHMENT PERIOD

Section 1 – Description and General

Contractor is in direct control of work performed under the Landscape Establishment Period. If work is subcontracted, a representative of the Contractor will be present at the site of the work for all hours that the subcontractor works. Subcontracting of Landscape Establishment work will be permitted for weed eradication with herbicides, because of special licensing. A licensed temporary service may be used to supply labor to Contractor if Contractor has received approval from City Representatives. Contractor will submit the required subcontract documentation.

Contractor must provide adequate personnel to accomplish the required maintenance of the plant materials at intervals acceptable to City Representatives.

If not healthy at the end of the maintenance period, the maintenance must be continued until the plant material is approved by City.

1.1 Time and Schedule

Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will be per General Conditions Section 6.5.4.

1.2 Planted Stock and Seeding Establishment

1.2.1 Tree planting and staking must be per City of Chandler Standard Detail C-801.

1.2.2 All trees will stand erect on their own without stakes when brought to this site. If the tree cannot stand on its own when nursery stakes are removed, the tree will be removed and replaced.

1.3 Pre-Emergent Herbicide and Weed Control

1.3.1 Contractor will provide three applications of an approved pre-emergent herbicide on all unpaved areas of the project, as directed by City Representatives, to control weed growth in all areas of the project. The number of applications may be increased as directed by the City Representative, and at no additional cost to City, if the City Representative deems additional applications are required to control weed growth.

1.3.2 Application sequence will be approved in advance by City. The first application of pre-emergent will be completed prior to the application of Decomposed Granite and will be included with the cost of the Decomposed Granite as specified and part of the Construction Phase portion of work. The second application of pre-emergent will be completed after installation of the Decomposed Granit and no later than half-way through the Landscape Establishment Period. The third and final application of pre-emergent will be applied 15 days prior to completion of the Landscape Establishment portion of the project. The second and third pre-emergent applications will be included with the cost of Landscape Establishment. Watering will be completed in accordance with the manufacturer's recommendations, as included and as related to each application.

1.3.3 The pre-emergent herbicide will be applied in accordance with the Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

1.3.4 The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

1.3.5 Contractor is responsible for the removal and disposal of all trash and debris that during the Landscape Establishment Period. Contractor will keep the project in a neat and orderly manner during the duration of the Landscape Establishment Period.

1.4 Water

The water used during Landscape Establishment to properly maintain the plant material will be furnished by City, at designated sources from within the project limits, at no charge to Contractor. Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

1.5 Plant Material Replacements

The plant material replacement will be considered as included in the work for Landscape Establishment, and will be made at no charge to the City.

1.5.1 Shrub and Plant Replacement - During the second half of the Landscaping Establishment period, Contractor will provide, where required, plant replacements as follows:

Original Size	**Replacement Size**
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
36-inch box	48-inch box

1.5.2 Tree Replacement – During the second half of the Landscape Establishment Period, Contractor will provide plant material replacements for existing plants that die as follows:

Existing Plant Material Sizes	**Replacement Size**
Trees:	
2-inch Caliper	24-inch box
4-inch Caliper	36-inch box
6-inch Caliper and greater	54-inch box
Shrubs:	
All Existing Shrubs	15 gallon

1.6 Measurement and Payment

See Technical Specifications for Measurement Payment provisions.

CHANDLER arizona
Community of Innovation

City Council Memorandum **Public Works & Utilities** **Memo No.** CP21-082

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
Andrew Goh, Capital Projects Manager

From: Sandra Story, Engineering Project Manager

Subject: Construction Manager at Risk Contract No. WW1901.401, with McCarthy Building Companies, Inc., for the Water Reclamation Facility Improvements GMP-1

Proposed Motion:

Move City Council award Construction Manager at Risk Contract No. WW1901.401 to McCarthy Building Companies, Inc., for the Water Reclamation Facility Improvements GMP-1, in an amount not to exceed $5,842,737.

Background/Discussion:

The City provides wastewater services to over 260,000 residents. This number is projected to increase to 300,000 by the year 2040. Wastewater is delivered to reclamation facilities where it is treated to produce A+ quality effluent for delivery to the City's reclaimed water system. The Ocotillo Water Reclamation Facility, located at 3333 S. Old Price Road, was originally built in 1985. The Airport Water Reclamation Facility, located at 905 E. Queen Creek Road, was originally built in 1998. Both facilities are in need of rehabilitation due to aging infrastructure. Major components of the project will include the replacement of sand media filters with updated cloth media technologies, rehabilitation of secondary clarifiers, replacement of large diameter blower piping, and related instrumentation and electrical upgrades.

The project scope of work for this first Guaranteed Maximum Price (GMP) construction contract consists of procurement of disc filters and stainless steel gates, demolition, and concrete work. This is the first of several GMP construction contracts that will be brought forward for City Council consideration on this project. The contract completion time is 250 calendar days following Notice to Proceed.

A related Professional Services Agreement with Wilson Engineers, LLC., for the Water Reclamation Facility Improvements, is also scheduled for this City Council meeting.

Evaluation:

The selection process was followed in accordance with City policy and procedure and State law. Staff recommends contract award to McCarthy Building Companies, Inc., based on qualifications, relevant firm experience, team experience, project understanding, and project approach. Staff reviewed the Guaranteed Maximum Price proposal and determined it to be reasonable.

Fiscal Impact

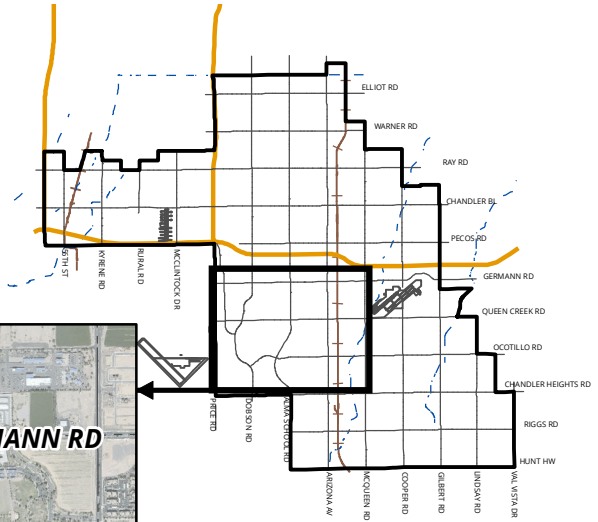
Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
615.3910.6814.6WW621	Wastewater Operating Fund	Water Reclamation Facility Impr	$5,842,737	Y

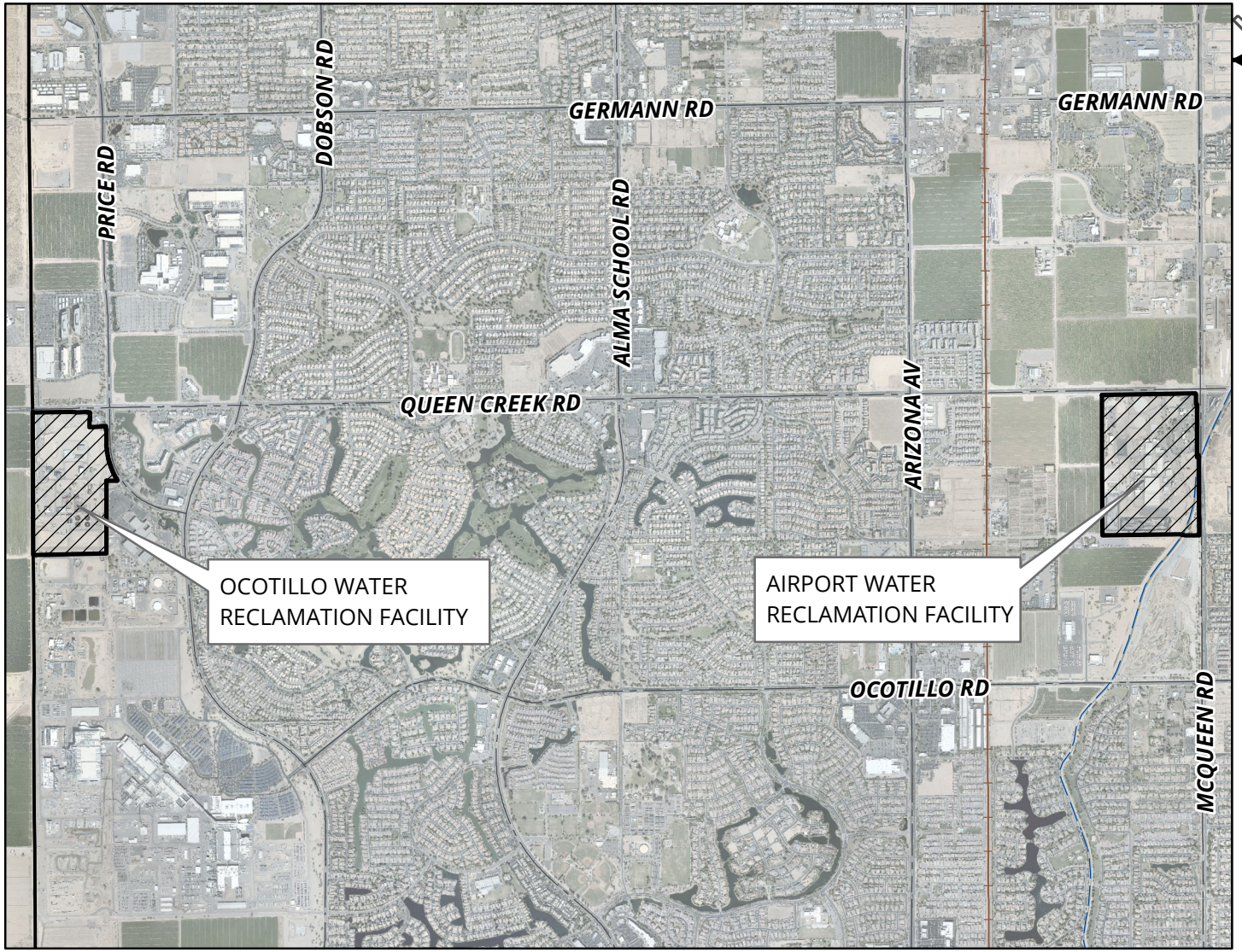
Attachments

Location Map
Contract

CHANDLER
arizona

WATER RECLAMATION FACILITY IMPROVEMENTS PROJECT NO. WW1901.401





MEMO NO. CP21-082

PROJECT SITE

NTS

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CITY OF CHANDLER, ARIZONA

WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1

CITY PROJECT NO. WW1901.401

CONSTRUCTION SERVICES CONTRACT

(CONSTRUCTION MANAGER AT RISK)

Andrew Goh, P.E.
CIP City Engineer

CITY OF CHANDLER, ARIZONA

WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1
CITY PROJECT NO.: WW1901.401

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CONSTRUCTION MANAGER AT RISK
CONSTRUCTION SERVICES CONTRACT
PROJECT NO.: WW1901.401

THIS CONTRACT is made and entered into on the _____day of _____, 2021, ("Effective Date") by and between City of Chandler, an Arizona municipal corporation, hereinafter called "City" and the "Construction Manager at Risk" or "CM@Risk" designated below (City and CM@Risk may individually be referred to as "Party" and collectively referred to as "Parties").

City and CM@Risk agree as follows:

ARTICLE 1 - PARTICIPANTS AND PROJECT

CITY: **City of Chandler**
CIP City Engineer: Andrew Goh
Public Works & Utilities Department
P.O. Box 4008, Mail Stop 407
Chandler, AZ 85244-4008
Phone: 480-782-3343
Email: andrew.goh@chandleraz.gov

CM@Risk: **McCarthy Building Companies, Inc.**
6225 N. 24th St., Ste. 200, Phoenix, AZ 85016
Business Organization: **Corporation**
State Where Organized: **Missouri**
CM@Risk Representative: **Mr. Shane Banks**
Phone: **480-389-7612**
Email: **sbanks@mccarthy.com**

PROJECT DESCRIPTION:

Procurement of disc filters and stainless steel gates, demolition and concrete work.

PROJECT LOCATION:

Ocotillo Water Reclamation Facility (OWRF) is located at 3333 South Old Price Road, and Airport Water Reclamation Facility (AWRF) is located at 905 East Queen Creek Road.

ARTICLE 2 - CONTRACT DOCUMENTS

2.1 CONTRACT DOCUMENTS

The Contract between City and CM@Risk will consist of the following Contract Documents:

1. This Construction Services Contract and all of its Exhibits, including Project Plans and Technical Specifications.
2. General Conditions and General Conditions Appendices, incorporated by reference.
3. Project Specific Special Provisions as set forth in **Exhibit A**, incorporated by reference.
4. Accepted GMP/Price Proposal as set forth in **Exhibit D**, incorporated by reference.

2.2 In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents will take precedence as described in Section 14.1.4 of the General Conditions.

2.3 DEFINITIONS

The definitions in Sections 2 and 15 of the General Conditions apply to all the Contract Documents, including this Agreement. Additional definitions or defined terms applicable to all the Contract Documents for this Project, if any, include the following:

N/A

ARTICLE 3 - PRE-CONSTRUCTION SERVICES

Although CM@Risk has performed Pre-Construction Services pursuant to a separate Contract between City and CM@Risk, the completion, quality and accuracy of those services and the deliverables provided by City thereunder directly impact CM@Risk's performance of its obligations under this Contract. Therefore, all of CM@Risk's obligations, duties, and warranties in relation to Pre-Construction Services and deliverables survive completion of the Pre-Construction Services Contract and are incorporated herein. Any breach of any of CM@Risk's duties, obligations, or warranties under the Pre-Construction Services Contract will likewise be considered a breach of this Contract.

ARTICLE 4 - CONSTRUCTION SERVICES

4.1 GENERAL

4.1.1 CM@Risk agrees at its own cost and expense, to do all work necessary and required to fully, timely and properly complete the construction of the Project in strict accordance with the Contract Documents in a good and workmanlike manner, free and clear of all claims, liens, and charges whatsoever, in the manner and under the conditions specified, and within the schedule, stated in attached **Exhibit A**.

4.1.2 CM@Risk must provide all of the labor and materials, and perform the Work in accordance with Section 4 of the General Conditions. Some, but not all, of the major components of the Construction Services and the corresponding subsections of Section 4 of the General Conditions are set forth below.

4.1.3 This is a contract for complete construction services in accordance with the Construction Manager at Risk method of delivery of construction services. CM@RISK has participated in the design process and been an active member of the Project Design Team and is fully aware of any issues and constraints involved in this Construction Project.

4.1.4 CM@RISK is the CITY's fiduciary responsible for undertaking all necessary action contemplated under the contract documents to construct the Project and ensure timely and quality completion of the Project at a cost within the Guaranteed Maximum Price (GMP).

4.1.5 At all times relevant to this Contract and performance of the Work, the CM@Risk must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project and the Contract, including, without limitation, those set forth on attached **Exhibit A**.

4.1.6 CM@Risk must perform the Work under this Contract using only those firms, team members and individuals designated by CM@Risk consistent with the Statement of Qualifications dated December 12, 2019, the GMP Proposal, or otherwise approved by City pursuant to the General Conditions. No other entities or individuals may be used without prior approval of the Project Manager

4.1.7 CM@Risk will comply with all terms and conditions of the General Conditions.

4.1.8 In the event of a conflict between this Contract and the General Conditions or an exhibit hereto or appendix thereto, the terms of this Contract will control.

4.1.9 Ownership of Work Product. Notwithstanding anything to the contrary in this Contract, all Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever

form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. § 101 (Copyright Act). If for any reason, any such Work is found not to be a Work Made for Hire, CM@Risk hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

4.2 **CM@RISK'S PRE-CONTRACT AND PRE-WORK DELIVERABLES**

4.2.1 The CM@Risk must provide the Deliverables in accordance with Section 4.2 of the General Conditions. Any additional items which CM@Risk must deliver to City prior to commencing the Work on this Project, if any, include the following:

N/A

4.3 **PRE-CONSTRUCTION CONFERENCE**

Refer to Section 4.3 of the General Conditions.

4.4 **PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)**

Refer to Section 4.4 of the General Conditions.

4.5 **CONTROL OF THE PROJECT SITE**

Refer to Section 4.5 of the General Conditions.

4.6 **PROJECT SAFETY**

Refer to Section 4.6 of the General Conditions.

4.7 **MATERIALS QUALITY, SUBSTITUTIONS AND SHOP DRAWINGS**

Refer to Section 4.7 of the General Conditions.

4.8 **PROJECT RECORD DOCUMENTS**

Refer to Section 4.8 of the General Conditions.

4.9 **WARRANTY AND CORRECTION OF DEFECTIVE WORK**

Refer to Section 4.9 of the General Conditions.

ARTICLE 5 - CITY RESPONSIBILITIES

5.1 City will have the responsibilities, and provide the information specified in, and subject to the conditions set forth in, Section 5 of the General Conditions.

5.2 Additional services to be provided or responsibilities assumed, by City, if any, are listed below:

N/A

5.3 Additional information to be provided by City, if any, is listed below:

N/A

ARTICLE 6 - CONTRACT TIME

6.1 GENERAL

6.1.1 The Contract Duration is **250** Calendar Days.

6.1.2 The Contract Time will start with the Notice to Proceed (NTP) and end with Final Acceptance, as set forth in Article 6.4 below. The Notice to Proceed cannot be issued until approval and acceptance by City of the GMP or Fixed Price.

6.1.3 The Contract Time will be as set forth in the Project Schedule. CM@Risk agrees that it will commence performance of the Work and complete the Project through Final Acceptance within the Contract Time.

6.1.4 Time is of the essence of this Contract for the Project, and for each phase and designated Milestone thereof.

6.2 PROJECT SCHEDULE

6.2.1 The Project Schedule approved as part of the GMP Proposal and incorporated herein as part of the attached **Exhibit D** must be updated and maintained throughout CM@Risk's performance under this Contract in accordance with Section 6.2 of the General Conditions.

6.2.2 Failure on the part of CM@Risk to adhere to the approved Project Schedule will be deemed a material breach and sufficient grounds for termination of this Contract by City.

6.2.3 Work must be completed to meet the following milestones after the Notice to Proceed:

	Milestone	Time	Liquidated damages for delay
1.	N/A	within days	$ per calendar day

6.3 **SUBSTANTIAL COMPLETION**

Substantial Completion must be achieved no later than the Substantial Completion Date set forth in the Project Schedule. Substantial Completion will be determined in accordance with Section 6.3 of the General Conditions.

6.4 **FINAL ACCEPTANCE**

6.4.1 Final Acceptance will be obtained within the time period set forth in the Project Schedule.

6.4.2 Final Acceptance will be issued pursuant to Section 6.5 of the General Conditions.

6.5 **LIQUIDATED DAMAGES**

6.5.1 Substantial Completion Liquidated Damages. CM@Risk acknowledges and agrees that if CM@Risk fails to obtain Substantial Completion of the Work within the Contract Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and CM@Risk agree that if CM@Risk fails to achieve Substantial Completion of the Work within the Contract Time, City will be entitled to retain or recover from CM@Risk, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

6.5.2 Final Acceptance Liquidated Damages. For the same reasons set forth in Article 6.5.1 above, City and CM@Risk further agree that if CM@Risk fails to achieve Final Acceptance of the Work within the Contract Time, City will be entitled to retain or recover from CM@Risk, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under the Contract.

6.5.3 MAG Liquidated Damages. If no liquidated damages are specified in Articles 6.5.1 or 6.5.2 above, then the liquidated damages provisions in MAG § 108.9 will apply.

6.5.4 City may deduct liquidated damages described in this Article 6.5 from any unpaid amounts then or thereafter due CM@Risk under this Agreement. Any liquidated damages not so deducted from any unpaid amounts due CM@Risk will be payable to City at the demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable by CM@Risk.

6.6 **MUTUAL WAIVER OF CONSEQUENTIAL DAMAGES ONLY**

6.6.1 CM@Risk and City waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

6.6.1.1 Damages incurred by City for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

6.6.1.2 Damages incurred by CM@Risk for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

6.6.2 This mutual waiver is applicable, without limitation, to all consequential damages due to either Party's termination of this Contract. Nothing contained in this Article 6.6 will be deemed to preclude an award of liquidated damages, when applicable, in accordance with Article 6.5 above.

6.6.3 Nothing herein will be deemed to constitute a waiver of any other remedy available to City in the event of CM@Risk's default under this Contract prior to full performance of the Work including, as applicable, specific performance or completion of the Work on behalf of CM@Risk, the cost and expense of which will be offset against any monies then or thereafter due to CM@Risk (if any) and otherwise immediately reimbursed to City by CM@Risk.

ARTICLE 7 - CONTRACT PRICE

7.1 CONTRACT PRICE

7.1.1 In exchange for CM@Risk's full, timely, and acceptable performances and construction of the Work under this Contract, and subject to all of the terms of this Contract, City will pay CM@Risk the "Contract Price," which:

The sum of the CM@Risk's Fee and reimbursable Cost of the Work, as defined in Section 15 of the General Conditions, which the CM@Risk guarantees will not exceed the GMP set forth in **Exhibit D** in the amount of **$5,842,737.** Costs which would cause the GMP to be exceeded must be paid by CM@Risk without reimbursement from City.

7.1.2 The Contract Price is all-inclusive and specifically includes all fees, cost, insurance and bond premiums, allowances, construction contingency, owner's contingency, and taxes of any type necessary to fully, properly and timely perform and construct Work.

7.2 **COSTS**

For any portion of the Work which, either through this Contract, Change Order or otherwise, is performed and paid for on a cost, or time and materials basis, the costs which may be reimbursed to CM@Risk and chargeable against the Contract Price will be determined as set forth in MAG § 109.5.

SIGNATURE PAGE TO FOLLOW

IN WITNESS WHEREOF, the Parties hereto have executed this Contract through their duly authorized representatives and bind their respective entitles as of the effective date.

"CITY"
CITY OF CHANDLER

MAYOR Date

Recommended By:

Andrew Goh, P.E. Date
CIP City Engineer

APPROVED AS TO FORM:

City Attorney

ATTEST:

City Clerk Seal

"CM@RISK"
McCarthy Building Companies, Inc.

Joseph Brunsman 2/17/2021
Signature Date

Joseph Brunsman
Name

Sr. Vice President
Title

ATTEST: If Corporation

Secretary

STATE OF ARIZONA)
)ss.
County of Maricopa)

SUBSCRIBED AND SWORN TO before me, the undersigned notary public, by Joseph Brunsman who was identified as the Sr. VP of McCarthy on this 17th day of February 20 21.

My commission expires:
4/28/22

Stacy Parks
Notary Public

STACY PARKS
Notary Public - Arizona
Maricopa County
My Commission Expires
April 28, 2022

EXHIBIT A

PROJECT SPECIFIC
SPECIAL PROVISIONS

N/A

EXHIBIT B

GENERAL CONDITIONS

CHANDLER arizona
Community of Innovation

GENERAL CONDITIONS

Approved date: January 22, 2021

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SECTION 1 - SCOPE OF THESE GENERAL CONDITIONS

These General Conditions encompass provisions that apply, and are incorporated into all construction contracts entered into by the City of Chandler, unless otherwise specifically excluded in the executed Contract.

SECTION 2 - GENERAL DEFINITIONS

Allowance: A specific amount for a specific item of Work, if any, that City agrees has not been sufficiently designed, detailed, or selected (including design changes from 90% to 100% as authorized by and at the discretion of the City) at the time the Contract Price is agreed to for Contractor to provide a definitive price.

Alternate Systems Evaluations or Alternative Analysis: Alternatives for design, means and methods or other scope considerations that are evaluated using value analysis principles and have the potential to reduce construction costs while still delivering a quality and functional Project that meets City requirements.

Change Order: A written instrument issued after execution of the Contract Documents signed by City and Contractor, stating their agreement upon all of the following: the addition, deletion or revision in the scope of services or deliverables; the amount of the adjustment to the Contract Price, the extent of the adjustment to the Contract Time, or modifications of other contract terms. The Contract Price and the Contract Time may be changed only by Change Order.

Consultant: Person or firm that provides professional services.

City (Owner or OWNER): City of Chandler, a municipal corporation, with whom Contractor has entered into the Contract and for whom the Work or Services are to be provided pursuant to the Contract(s).

Contingent Bid Items: This is a minor bid item which is likely, but not certain, to occur during the course of work. If the Engineer determines that this work is required, the Contractor will accomplish the work and payment will be made based on the contingent unit bid price included in the proposal. Since the quantity listed in the proposal is primarily for bid comparison, the amount of work required by the Engineer may vary materially from this.

Contract: The written agreement executed between City and Contractor, including all of the Contract Documents.

Contract Documents: The documents which together form the Contract between City and Contractor, as identified in Article 2 of the Contract, or are otherwise incorporated into the Contract, including the Contract, the exhibits thereto, these General Conditions, any Notice to Proceed, and any Job Order (if applicable), the Plans and Specifications, Project Schedule, written and properly executed Change Orders, MAG Specifications and City's amendments thereto, and any other documents so designated in the Contract.

Contract Price: The agreed-upon price to be paid to Contractor for full, timely, and acceptable completion of the Work or Services under the terms of the Contract.

Contract Time(s): The number of calendar days or the dates related to the applicable phase, Substantial Completion, or Final Acceptance as stated in Contract Documents. Contract Time starts with the Notice

to Proceed (NTP) and ends with Final Acceptance. The Contract Time is set forth in the Contract and is based upon the Project Schedule agreed to by City in writing.

Contractor: The person or business association with whom City has entered into an agreement for construction related Work or Services in relation to the Project at issue.

Contractor Payment Request: The form that is accepted by City and used by Contractor in requesting progress payments or final payment and which must include such supporting documentation as is required by the Contract Documents or City.

Construction Budget: The City's budget for construction of the Project.

Construction Documents: The Plans, Specifications, and Drawings prepared and issued by the Design Professional and approved by City for construction, meaning the documents are sealed by the Design Professional (as required), acceptable for permitting and incorporated into the Contract by this reference. All amendments and modifications to the Construction Documents must be approved in writing by City prior to incorporation into the Contract.

Cost of the Work: The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs will be at rates not higher than the standard paid at the place of the Project except with prior consent of City.

Critical Path Method (CPM): A scheduling technique which identifies the logical sequence of the activities occurring in a Construction Project, the anticipated time required to complete each activity in the Project, and the activities that must be completed on schedule to finish the Project within the anticipated time. Typically, activities are arranged in a network that shows both activities and their dependencies. CPM is also used as a management technique which enables contracting parties to predict when activities may occur so that resources can be effectively used and limitations can be identified.

Critical Path: Critical Path is the sequence of project network activities which add up to the longest overall duration. Once established in the Project Schedule, the Critical Path for the Project must not be changed without prior written approval of City.

Day: Calendar day(s) unless otherwise specifically stated in the Contract Documents.

Design Professional: The qualified, licensed person, firm or corporation who furnishes design and construction administration services required under the Contract Documents. These services may include, but are not limited to: development of Construction Drawings and Documents, review of Contractor Submittal(s), review of and response to Requests for Information, approval and certification of progress payment applications, construction administration, and construction contract close out.

Differing Site Conditions: Concealed or latent physical conditions or subsurface conditions at the Site that, (i) materially differ from the conditions indicated in the Contract Documents, or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work at the general area of the Site. Caliche, rock, hard-digging or sandy/silty soil encountered on a project is not considered a "Differing Site Condition."

Drawings (Plans): Documents, which visually represent the scope, extent and character of the Work to be furnished and performed by Contractor during the construction phase and which have been prepared

or approved by the Design Professional and City. These documents include Drawings that have reached a sufficient state of completion and released by Design Professional solely for the purposes of review and use in performing constructability or bid-ability reviews by Contractor and in preparing cost estimates (e.g. Master Planning and Programming, Schematic Design, Design Development, and Construction Drawings), but *"not for construction*." Shop Drawings are not Drawings as so defined.

Final Acceptance: The City's acceptance of the facility or project from the Contractor after all Work is completed, tested, and inspected in accordance with the contract requirements. Final Acceptance results in a Letter of Acceptance (LOA).

Fixed Price: A fixed price or amount for a Contract Price, Scope of Work, materials, or other item under a Contract, Change Order, or other agreement, which City agrees, in writing, to pay instead of the actual cost.

Float: The number of Days by which an activity can be delayed without lengthening the Critical Path and extending the Contract Time. Unless otherwise expressly agreed in writing, all Float belongs to City.

Laws, Regulations, or Legal Requirements: Any and all applicable laws, rules, regulations, ordinances, codes and orders applicable to the Project of any and all governmental bodies, agencies, authorities and courts having jurisdiction and any applicable provisions of the Development Agreement for the Project (if any), including, without limitation, those provisions relating to the design and construction of the Project.

Line Item: The individual elements of Work identified on a bid or other schedule and associated with a price or a unit price and quantity particular to that individual element of the Work. Also refers to individual items of work within the Schedule of Values.

Liquidated Damages: Designated damages for the City to collect as compensation upon a specific breach (example: late delivery).

Long-Lead Item: Long-lead item refers to the equipment, product, or system that is identified at the earliest stage of a project to have a delivery time long enough to affect directly the Critical Path/the overall lead time of the project.

MAG: The Maricopa Association of Governments.

MAG Specifications: The most current version of the Uniform Standard Specifications for Public Works Construction published by MAG.

MAG Standard Details: The most current version of the Uniform Standard Details as published by MAG.

Minor change: A change in the Work having no impact on cost or time or the City-approved design intent, as determined by City.

Notice to Proceed (NTP): A written notice given by City to Contractor fixing the date on which Contractor will start to perform Contractor's obligations under the Contract.

Project: The Project specified in the Contract (including a Job Order).
Project Manager: The Project Manager designated in Article 1 of the Contract, or any successor thereto designated by City. The Project Manager has the authority to act on behalf of City, as delineated and

limited by the Contract Documents and applicable law. And City will communicate with Contractor through the Project Manager. However, the Project Manager has no authority to bind City or City Council in contravention of any City code, State or Federal statute or regulation, or these General Conditions.

Project Schedule: The schedule for the completion of the Project agreed to and required by City.

Project Specific Conditions: Additional conditions which apply to the specific Project and Scope of Work which are set forth in Exhibit D of the Contract.

Project Team: The Project Team consisting of the Design Professional, Contractor, Project Manager, and such others as City may designate.

Punch List: The list initially prepared by Contractor pursuant to the Contract Documents, reviewed and supplemented by the Project Manager (and at the sole option of the Project Manager, the Design Professional) and approved by City containing items of incomplete work not impacting Substantial Completion, if allowed for under the Contract, and to be completed or corrected by Contractor after Substantial Completion and before Final Acceptance in accordance with the Contract Documents.

Quality Assurance (QA) Testing: Testing performed to verify the accuracy and applicability of the QC testing results and to ascertain that the materials installed meet the specified levels of quality in accordance with the Contract Documents.

Quality Control (QC) Testing: Testing performed to assure that the materials installed comply with the requirements in the Contract Documents.

Requests for Information (RFIs): Formal written request from Contractor to City or Design Professional for the Project seeking clarification or additional information needed for Contractor to properly complete the Work or Services under the Contract. City may require RFI's to be submitted on a specific form or in a specified format.

Schedule of Values (SOV): The specified document prepared by Contractor, and approved and accepted by City, which divides the Contract Price into pay items, such that the sum of all pay items equals the Contract Price for the construction phase Work, or for any portion of the Work having a separate specified Contract Price.

Scope of Work: The scope of work agreed to or required by City and incorporated into the Contract as Exhibit A.

Shop Drawings: All drawings, diagrams, schedules and other data specifically prepared for the Work by Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

Site: The land or premises on which the Project is located.

Specifications: The part(s) of the Contract Documents for the construction phase consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. Where specified, the Project must be constructed using the current Uniform Standard Specifications and Details for Public Works Construction as furnished by the Maricopa Association of Governments, as amended by City.

Subconsultant: A person, firm or corporation having a Contract with Consultant/Contractor to furnish services required as its independent professional associate or consultant with respect to the Project.

Subcontractor: An individual or firm having a direct Contract with Contractor or any other individual or firm having a Contract with the aforesaid contractors at any tier, who undertakes to perform a part of pre-construction services or construction phase Work at the Site for which Contractor is responsible. Subcontractors must be selected through the Subcontractor selection process described in the Contract Documents, if any.

Substantial Completion: The date when the City determines that the Work (or separable units of Phases as provided in the Contract Documents) is essentially and satisfactorily complete in accordance with the Contract Documents such that the Project is ready for use by the City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories, and similar elements are installed in the proper manner and in operating condition, inspected, and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air conditioning, vertical transportation, and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other work as applicable, has been performed to a similar state of essential and satisfactory completion.

Supplier: A manufacturer, fabricator, distributor, or vendor having a direct Contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the construction phase Work by Contractor or any Subcontractor.

Total Float: Number of Days by which pre-construction services or construction phase Work or any part of the same may be delayed without necessarily extending a pertinent Contract Time or schedule milestone in the Project Schedule.

Work: The entire completion of construction or the various separately identifiable parts thereof, required to be furnished during the construction phase. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials, resources and equipment into the construction, and performing or furnishing services and documents as required by the Contract Documents for the construction phase.

Writing: Typing, printing, photography and other modes of representing or reproducing words in a visible form, including email, and expressions.

SECTION 3 - STANDARD SPECIFICATIONS AND DETAILS

3.1 City operates under the latest revision of the MAG Specifications and MAG Standard Details as amended by City. City's current amendment to the MAG Specifications, part of the City's Unified Development Manual, may be found in the downloaded from City's website at http://www.chandleraz.gov.

3.2 Copies of the MAG Specifications and MAG Standard Details are available at the Maricopa Association of Governments office, 302 N. 1st Avenue, Suite 300, Phoenix,

Arizona. They may also be downloaded from their website at: http://www.azmag.gov/Newsroom/Publications

3.3 The MAG Specifications and Standard Details and City's amendments thereto are incorporated into the Contract by this reference.

SECTION 4 - CONTRACTOR'S RESPONSIBILITIES FOR CONSTRUCTION SERVICES

4.1 **GENERAL**

4.1.1 Contractor must construct the Work in accordance with the Contract Documents and as outlined in Exhibit A of the Contract to the satisfaction of City, exercising the degree of professional care, skill, diligence, quality and judgment that a professional construction manager engaged, experienced and specializing in the construction management of construction and facilities of similar scope, function, size, quality, complexity and detail in urban areas throughout the United States comparable to Chandler, Arizona would exercise at such time, under similar conditions. Contractor must, at all times, perform the Work in conformance with sound and generally accepted engineering principles and construction management and construction contracting practices.

4.1.2 If Contractor observes errors, discrepancies or omissions in the Contract Documents, Contractor must promptly notify the Design Professional and City and request clarification. If Contractor, with the exercise of reasonable care, should have recognized such error, inconsistency, omission or difference and fails to report it to City, and if Contractor proceeds with the Work affected by such observed errors, discrepancies or omissions, without receiving such clarifications, Contractor does so at its own risk and will be liable to City for damages resulting from proceeding without clarification.

4.1.3 Project Team and agents of each of them, testing agencies and governmental agencies with jurisdictional interests will be provided access to the Work at reasonable times for their observation, inspection and testing. Contractor must provide proper and safe conditions for such access.

4.1.4 Contractor must comply with, and require all Subcontractors to comply with, the Arizona Contractors' license laws, including all requirements with respect to being duly registered and licensed.

4.1.5 Contractor must insure that all employees performing any Work for which Contractor is responsible have a legal right to live and work in the United States. In addition, all compensation of any such employee must meet all applicable requirements of the Fair Labor Standards Act (FLSA) and Federal Minimum Wage laws.

4.1.6 Contractor must comply with the Immigration Reform and Control Act of 1986 (IRCA). Contractor understands and acknowledges the applicability of the IRCA activities. Contractor agrees to comply with the IRCA while performing their work and to permit City inspection of Contractor personnel records to verify such compliance.

4.1.7 Pursuant to MAG Specifications §§ 107.4, Contractor must report immediately any discovery of archeological ruins or artifacts. Excavation must stop immediately so that City can decide on the pertinent steps to follow such discovery.

4.1.8 All property owners that may be affected by the proposed construction activities must be

notified of the scope, duration of the construction activities and possible interference with their day-to-day activities by Contractor prior to start of construction. In addition, individual residential or commercial interferences, such as driveway restrictions, water outages, and all other Work adjacent to residence/business, require 48-hour notification in advance of specific adjoining Work. Notification may be through door hangers or other procedures approved by the City.

4.1.9 Access must be maintained to adjacent properties at all times during construction. Where property has more than one point of access, no more than one access will be restricted or closed at any one time. Access to adjacent private driveways will be maintained during all non-working hours.

4.1.10 Contractor must furnish and erect construction signs in accordance with Project Specifications. The signs must be professionally prepared and subject to approval by City, must be maintained by Contractor for the duration of the project, and must be removed by Contractor during the final project clean up.

4.1.11 The number of signs required, the size, shape, installation requirements and information to be included for construction signs is established on the detail sheet, provided, however, signs must be a minimum of 4 foot by 8 foot and must be installed so that the bottom of the sign is at least 4 foot above grade. No direct payment will be made for furnishing and erecting construction signs. The cost thereof must be included in other items for which direct payment is made. Sign locations will be determined by City.

4.1.12 All required construction signs must be installed by Contractor within 7 Days of Notice to Proceed.

4.1.13 The Work to be accomplished under these Contract Documents has been designed for City by a Design Professional retained by City for this purpose. It is understood that normal construction Administration for the purpose of interpretation of the Contract Documents is provided by City. Should any services of the Design Professional be required to assist in the corrections of errors or omissions by Contractor, or services of the Design Professional be required because of changes in structure or equipment where Contractor has requested approval of substitute methods or material, or any other items detailed herein below, those services will be provided by the Design Professional at the standard hourly rates previously negotiated with City and must be paid for by the Contractor.

4.1.14 Contractor must reimburse City for costs incurred by the Design Professional for additional services to the Project through no fault of City or the Design Professional including, but not limited to, the following conditions:

a. Additional Site visits, investigations, inspections, design work or reports by the Design Professional which are required due to damages to existing facilities or completed Work caused by the Contractor in his performance, Contractor's negligence, or Contractor's Work which is rejected as defective or as failing to conform to the Contract Documents;

b. Design Professional construction phase services rendered on the project during the time the project remains incomplete after the Contract date of final completion will be charged to Contractor at a rate previously negotiated City; and

c. All retesting required due to the failure of Contractor's Work to meet the

requirements of the Contract Documents will be at Contractor's expense. All standby and travel time by the City's testing lab, the Design Professional or City due to Contractor's inability to be prepared for testing at the agreed upon time will be at the Contractor's expense.

4.1.15 City may withhold from any payment otherwise due to Contractor any amounts necessary to pay the Design Professional for such additional services as provided herein above.

4.1.16 Contractor will not be required to bear additional costs incurred by City due to errors by the Design Professional.

4.2 **CONTRACTOR'S PRE-CONTRACT AND PRE-WORK DELIVERABLES**

4.2.1 Prior to award of the Contract, Contractor must execute Contract and deliver to City. Failure to do so may delay Contract award. Contractor must also provide to City its Contractor's License classification and number and its Federal Tax I.D. number.

4.2.2 Before beginning any Work under the Contract, Contract must be fully executed by City.

4.2.3 After Contract award, City will issue to Contractor an award letter. At that time Contractor must deliver to City such bonds and certificates of insurance with endorsements in such amounts (and other evidence of insurance requested by City) required under Section 11 of these General Conditions, and as the Contract requires.

4.2.4 As evidence of Workmen's Compensation Insurance, Contractor must, upon request, provide a letter of certification from the Industrial Commission of Arizona that Contractor is insured by the State Compensation Fund or is an authorized self-insurer or a certificate of insurance issued by an insurance company authorized by the Insurance Department of Arizona to write Workmen's Compensation and Occupational Disease Insurance in the State of Arizona.

4.2.5 Within 10 Days of the date of the executed Contract letter issued by City, Contractor must submit to City for review and acceptance the following items:

4.2.5.1 Comprehensive construction Project Schedule including a Critical Path Method (CPM) diagram schedule as described in Section 6.2. Project Schedule must be in Microsoft Project standard file format. Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review.

4.2.5.2 Preliminary schedule of submittals and Shop Drawings. Within 10 Days of receipt of City's comments, Contractor must submit the corrected and completed schedule of Shop Drawings submissions for approval. Contractor's schedule of Shop Drawings and sample submittals will be acceptable to City if it provides a workable arrangement for reviewing and processing the required submittals.

4.2.5.3 Schedule of Values in a form specified by City reflecting the subcontracts and other categories that will be used to submit Pay Applications for the Work. The total amount of the Schedule of Values must not be greater than the Contract Price. The Schedule of Values will be reviewed at the Pre-Construction Conference and revised by Contractor within 10 Days after Pre-Construction Conference in response to comments and questions from City. Once accepted by City in writing, the Schedule of Values for the Project must not be changed without the prior written approval of City.

4.2.6 Video Recording Requirement. Prior to performing any Work, Contractor must document the existing conditions of the Site, all other areas where Work will occur and all adjacent areas that may be impacted by the Work via digital video format. Contractor must video record and index all areas, features, buildings and other public and private improvements that could potentially be impacted by the Work. Video recording must be coordinated with City. When video recording private property, Contractor must also coordinate the video recording with the private property owner, if possible. Contractor must provide City with a copy of said digital video format prior to performing any Work.

4.2.7 Aerial Drone Construction Photography.

4.2.7.1 If Contract duration is greater than 90 calendar days, Contractor must engage a professional unmanned aerial vehicle (UAV) aerial pilot to photograph the Site prior to construction mobilization, at three-month intervals during construction, and following final inspection. Drone camera specifications must meet the following minimum requirements:

a. 1-inch CMOS
b. Pixels: 20M
c. FOV 84 8.8 mm/24 mm (35 mm format equivalent) f/2.8-f/11 auto focus at 1 m-
d. For photographing: 16.9 Aspect Ratio: 5472x3078
e. For video shooting: MP4/MOV/H.264
f. FHD: 1920x1080 120p @100Mbps
g. File format: High Definition (HD) JPEG for digital photos and HD MPEG 4 for digital video.
h. All metadata to be recorded including GPS data and preserved with photographs provided.

Interval	**JPEG**
3 month intervals	At an altitude (AGL) between 70-90 ft.
3 month intervals	Images to be taken every 50-100 ft. to be determined based on project scope.

4.2.7.2 Drone photos to be taken in sequential geographical order and then organized and provided in the same manner unless otherwise specified.

4.2.7.3 Photos to be provided digitally via an online file share service and/or by a USB drive to contractor.

4.2.7.4 Drone pilots to obey ALL local (city, county, state) UAV regulations as well as FAA UAV guidelines including, but not limited to, conducting all flights during daylight hours, not exceeding maximum altitude ceilings (depending on area), not flying over people, yielding to other aircraft.

4.2.7.5 Drone pilots must fly drone within visual line of sight (VSOL) and have visual spotter when needed. Drone pilots only to operate in favorable weather conditions when minimum visibility is 3 miles or greater.

4.2.7.6 Drone pilots to conduct a preflight checklist and visually inspect the entire flight path prior to flying to ensure a safe flight.

4.2.7.7 Airspace Authorizations. Operations in Class G airspace are allowed without air traffic control (ATC) permission. Operations in Class B, C, D and E airspace need ATC authorization. Drone

pilots to schedule each flight in advance and based on airspace if required will notify nearby airports/control towers, etc.

4.2.8 Government Approvals and Permits.

4.2.8.1 Contractor must obtain all necessary permits for the Work and pay all applicable fees, unless otherwise noted on the Plans and in the Specifications. City permit fees will be paid internally by City. For bidding purposes, an allowance for all permit fees is included in the bid schedule under the item "allowance for permit fees." The Contractor will be paid for the actual cost of the permit fees upon submitting a receipt showing the fee Contractor has paid. Excluded from the above allowance are items such as all costs incurred by the Contractor in securing the permit except for the actual permit fee established by the agency, cost for all shut downs or outages, cost for pole bracing, cost of permits for construction water, cost of construction water, cost for any additional insurance requirements, cost for any licenses, and other similar type costs. Contractor is specifically notified of the need to obtain the necessary environmental permits or file the necessary environmental and regulatory permit notices.

4.2.8.2 Copies of all permits and the associated notices must be provided to City prior to starting the permitted activity.

4.3 PRE-CONSTRUCTION CONFERENCE

4.3.1 Prior to the commencement of any Work, City will schedule a Pre-Construction Conference.

4.3.2 The purpose of this Conference is to establish a working relationship between Contractor, the utility firms, and various City agencies. The agenda will include critical elements of the Work schedule, submittal schedule, cost breakdown of major lump sum items, Payment Requests and processing, coordination with the involved utility firms, and emergency telephone numbers for all representatives involved in the course of construction.

4.3.3 Minimum attendance by Contractor at any mandatory meeting with City must be (1) Contractor's Representative, who is authorized to execute and sign documents on behalf of the firm, (2) Contractor's on-site Superintendent, and (3) Contractor's Safety Office, or other employee responsible for safety.

4.4 PERFORMANCE OF THE WORK (INCLUDING FIELD MEASUREMENTS, SUBCONTRACTORS, AND SUPPLIERS)

4.4.1 Unless otherwise provided in the Contract Documents to be the responsibility of City or a separate Contractor, Contractor must provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Contractor to complete the Work consistent with the Contract Documents.

4.4.2 Contractor must perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Contractor must at all times exercise complete and exclusive control over the means, methods, safety, sequences and techniques of construction.

4.4.3 Contractor's Superintendent must be present at the Site at all times that material Work under this Contract is taking place. Contractor's Superintendent or designee must be present at the Site at all times any other Work under this Contract is taking place.

Superintendent must not be replaced without written notice to City. Whenever the Superintendent is not present at a particular part of the Work where the City or Design Professional may desire to inform the Contractor relative to interpretation of the Drawings and Specifications or to disapproval or rejection of materials or Work performed, the City or Design Professional may provide such information in writing to the foreman or other worker in charge of the particular part of the Work in reference to which the information is given. Information so given will be as binding as if given to the Superintendent.

4.4.4 All elements of the Work must be under the direct supervision of a foreman or his designated representative on the Site who must have the authority to take actions required to properly carry out that particular element of the Work.

4.4.5 Working Hours. Except in connection with the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise indicated, all Work at the Site must 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 City's written consent given after prior written notice to City. If it will become absolutely necessary to perform Work at night or on Saturdays, Sundays or legal holidays, the City must be informed at least 24 hours in advance of the beginning of performance of such Work. Only such Work will be done at night as can be done satisfactorily as determined by the City. Good lighting and all other necessary facilities for carrying out and inspecting the Work must be provided and maintained at all points where such Work is being done. Further, unless such non-normal work hours are performed at City's request or required by the Contract Documents, Contractor must pay to City all additional costs incurred by City by reason of such non-normal working hours. Expenses incurred by City for overtime compensation must be reimbursed by Contractor as follows: (i) City staff at the rate set forth in current City Fee Schedule as published on City website, (ii) Design Professional and staff at the standard hourly rates previously negotiated with City, and (iii) all others at actual cost plus ten percent administrative overhead. Such costs may be deducted by City from any payments due to Contractor. Provided, however, if overtime work or work during other than normal hours is at the request of City and not due to Contractor delay, City will pay the cost of City overtime expenses.

4.4.6 Where the Contract Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is Contractor's responsibility to ensure the Subcontractor employed for such work is approved by the manufacturer. All materials and equipment must be stored, applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents; but no provisions of any such instructions will be effective to impose on City of Design Professional responsibility for the means, methods, techniques, sequences or procedures of construction or for safety precautions incident thereto.

4.4.7 Before starting the Work, Contractor must carefully study and compare the various Plans, Drawings, other Contract Documents, and Specifications relative to that portion of the Work, as well as the information furnished by City, must take field measurements of any existing conditions related to that portion of the Work and must observe any conditions at the Site affecting it. The exactness of grades, elevations, dimensions, or locations given on any Drawings, or the Work installed by other contractors, is not guaranteed by City.

4.4.8 Before ordering materials or doing Work, Contractor and each Subcontractor must verify

measurements at the Site and will be responsible for the correctness of such measurements. No extra charge or compensation will be allowed because of differences between actual dimensions and the dimensions indicated on the Contract Documents, including the Drawings.

4.4.9 Ground Level Construction Photography.

4.4.9.1 The Contractor must furnish progress photographs of the project. The photographer selected by the Contractor must be approved by the City and must be either a commercial photographer or an individual experienced and equipped for such photography.

4.4.9.2 The Contractor must deliver to City all photographs taken during that period with each application for payment. If the current photographs do not accompany the application, the application will not be reviewed and will be returned to the Contractor as incomplete.

4.4.9.3 Photographs must be identified by use of typewritten labels affixed to the back of the photograph. The label must provide a description of the view, the direction from which the photograph was taken, the name of the project, City's project number, the name of Contractor and the date of the photography. The stationing must also be included for all pipeline installations.

4.4.9.4 Photographs must be taken during the construction period and must be of aesthetic composition and depict the progress of the Work from the beginning of construction through and including the finished product. City may vary the specified frequency so that significant progress or changes can be recorded on the photographs.

4.4.10 Underground Facilities.

4.4.10.1 The existence and number of facilities as shown on the Plans are estimated from information furnished by the particular utility. Contractor is responsible for field verification and location of all utilities prior to the start of construction. No field work will be allowed to start until Contractor has contacted Arizona 811 and all affected utilities have been located. In addition Contractor must expose and physically locate all potentially conflicting utilities prior to construction. The actual locations of the utilities must be compared to locations shown on the Plans and any required changes in alignment and grade must be made at the time of construction in consultation with Project Manager. It is generally recognized and Contractor should anticipate that information from Arizona 811 or information from utility companies during project design, frequently fails to disclose all underground facilities. The fact that more utility lines or other underground facilities are located in the Project Site than shown on the Project Plans does not constitute an "unforeseen Condition" and such undisclosed underground facilities do not differ materially from the conditions which Contractor should expect. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction apply and are incorporated herein by this reference.

4.4.10.2 Contractor is responsible for all coordination with utility companies. The provisions of Sections 105.4, 105.6, 107.11 and 109.8.1 of the MAG Uniform Standard Specifications for Public Works Construction strictly apply and no additional compensation will be paid to Contractor for delays due to utility work on the project.

4.4.11 Relocation of Existing Water Meters. When a service line has been extended and a line setter installed in a meter box, City forces will re-install meter. No compression fittings will

be utilized.

4.4.12 Water Turn-On or Turn-Off.

4.4.12.1 Contractor must coordinate all water line turn-ons and turn-offs through the City. Application must be made to the Municipal Utility Division and Contractor must pay the established charges. The City will close existing valves, but will not guarantee a bone-dry Shutdown.

4.4.12.2 Contractor must notify all customers affected by the turn-off not less than 48 hours in advance. Notification must be in writing, must give the reason for the turn-off and must give the estimated time and duration that water service will be interrupted. Contractor is also notified that water turn-off will not be permitted on the Day before and after Thanksgiving Day and Christmas Day.

4.4.12.3 No direct payment will be made to Contractor for turn-ons or turn-offs. Costs associated therewith will be included in other items for which direct payment is made.

4.4.13 Tests and Inspections.

4.4.13.1 Contractor must give City timely (at a minimum, twenty-four hours) notice of readiness of the Work for all required inspections, tests or approvals. Contractor must give timely notice to City in advance of backfilling or otherwise covering any part of the Work so that city representative may, if desired, observe such part of the Work before it is concealed. Whenever Contractor varies the normal period during which Work or any portion of it is carried on each Day, Contractor must give timely notice to City so that city representative may, if desired, be present to observe the Work in progress. If Contractor fails to give such timely notice, any Work done in the absence of city representative will be subject to rejection. If Contractor gives such notice to City, but then is not ready for such inspections, tests, approvals or observations at the time so noticed, Contractor must reimburse City for all costs incurred by the attendance of city representatives.

4.4.13.2 If any law, ordinance, rule, regulation, code, or orders of any public body having jurisdiction requires any Work (or part thereof) to be inspected, tested or approved, Contractor (unless another party is specified in the Contract Documents) must assume full responsibility therefor, pay all costs in connection therewith and furnish City the required certificates of inspection, testing, or approval. Contractor must also be responsible for and must pay all costs in connection with any inspection or testing required by the Specifications in connection with City's acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Contract Documents will be paid by City (unless otherwise specified).

4.4.13.3 All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction must be performed by organizations acceptable to City and by the Design Professional if so specified.

4.4.13.4 Neither observations by City, the Design Professional nor inspections, tests or approvals by others will relieve Contractor from their obligations to perform the Work in accordance with the Contract Documents.

4.4.14 Uncovering Work. If any Work that is to be observed, inspected, tested or approved is covered without written concurrence of City, it must, if requested by City be uncovered for observation. Unless Contractor has given City timely notice of Contractor's intention to cover such Work and City has not acted with reasonable promptness in response to such notice, Contractor must furnish all necessary labor, material and bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order will be issued.

4.4.15 In all cases of interconnection of its Work with existing or other Work, Contractor must verify at the Site all dimensions relating to such existing or other Work. Any errors due to Contractor's failure to so verify all such grades, elevations, locations or dimensions must be promptly rectified by Contractor without any increase in the Contract Price. Any design errors or omissions noted by Contractor during this review must be reported promptly to City.

4.4.16 Contractor must establish and maintain all construction grades, lines, levels, and benchmarks, and will be responsible for accuracy and protection of same. This Work must be performed or supervised by a licensed civil engineer or surveyor in the State of Arizona.

4.4.17 Contractor must photograph all buried piping of greater than four (4) inches in diameter prior to backfill.

4.4.18 Contractor is responsible for the proper performance of the work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between City and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

4.4.19 Contractor must coordinate the activities of all Subcontractors. Contractor must coordinate performance of the Work with City's Public Works & Utilities Department and other departments or agencies within City. The Design Professional and other contractors or parties involved in the Project. If City performs other work on the Project or at the Site with separate contractors under City's control, Contractor agrees to cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

4.4.20 Contractor will not substitute or change any Subcontractor or Supplier without the prior written approval of City. Any substitute or replacement Subcontractor or Supplier must be required to meet the same qualifications and selection criteria and process as the original Subcontractor or Supplier. If a Subcontract/Supplier selection plan has been approved by City, Contractor will follow that plan unless otherwise approved by City in writing.

4.4.21 Contractor must not change or replace any members of its Project team, including Contractor's Representative, Project Manager, or Superintendent, without an explanation for the change being given to City, and receiving prior written approval of the change from City, which approval will not be unreasonably withheld.

4.4.22 Subcontractors whose scope of work has a value greater than 15% of the total Contract Price are required to furnish performance and payment bonds to Contractor, unless otherwise

approved in writing by City.

4.4.23 Contractor must comply with MAG Specification § 108.2 (E) unless otherwise specified in Contract Documents.

4.5 CONTROL OF THE PROJECT SITE

4.5.1 Throughout all phases of construction, including suspension of Work, Contractor must keep the Site reasonably free from debris, trash and construction wastes to permit Contractor to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Prior to Final Acceptance of the Work, or a portion of the Work, Contractor must remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit City to occupy the Project or a portion of the Project for its intended use.

4.5.2 Contractor must take whatever steps, procedures or means necessary to prevent dust nuisance due to construction operations. The dust control measures must be maintained at all times to the satisfaction of City and in accordance with the requirements of the Maricopa County Bureau of Air Pollution Control Rules and Regulations.

4.5.3 Contractor must maintain Americans with Disabilities Act (ADA) and American National Standards Institute (ANSI) accessibility requirements during construction activities, including without limitation compliance with the 2010 regulations governing implementation of the ADA to the extent applicable. ADA and ANSI accessibility requirements must include, but not be limited to, parking, building access, areas of refuge, and emergency exit paths of travel. Contractor i s responsible for the coordination of all Work to minimize disruption to residents and the public.

4.5.4 Only materials and equipment used directly in the Work will be brought to and stored on the Site by Contractor. When equipment is no longer required for Work, it must be removed promptly from the Site. Protection of construction materials and equipment stored at the Site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

4.5.5 Contractor agrees all persons working on the Site must act at all times in the best interest of the Project and will comply with all applicable rules and regulations reasonably set forth by City related to the Site. Notwithstanding the foregoing or anything in this Agreement to the contrary, City may remove from the Site any individual who City deems in their reasonable discretion to be creating a disturbance or causing any problem on the Site.

4.5.6 Contractor will be responsible to City for the acts and omissions of Contractor's employees, Subcontractors and their agents and employees, and any other person performing any of the Work under a Contract with Contractor, or claiming by, through or under Contractor, for all damages, losses, costs and expenses resulting from such acts or omissions.

4.5.7 City may conduct criminal, drive history, and all other requested background checks of Contractor and Subcontractor personnel performing Work or who have access to City's information, data, or facilities in accordance with City's current background check policies, or the provisions of the Project Specific Conditions. Any officer, employee or agent that fails to background check must be replaced immediately.

4.5.8 City will have a final authority, based upon security reasons: (i) to determine when

security clearance of Contractor's and Subcontractor's personnel is required; (ii) to determine the nature of the security clearance, up to and including fingerprinting personnel; and (iii) to determine whether or not any individual or entity may provide Services or perform Work under the Contract.

4.5.9 If City objects to any personnel for any reasonable cause, then Contractor must, upon notice from City, remove such individual from the Project.

4.6 **PROJECT SAFETY**

4.6.1 The Project and all Work performed in relation thereto is governed by applicable provisions of the federal laws, including but not limited to, the latest amendments of the following:

a. Williams-Steiger Occupational Safety & Health Act of 1970, Public Law, 91-596.

b. Part 1910 and Part 1926 – Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations.

c. Part 1518 – Safety and Health Regulations for Construction, Chapter XIII of Title 29, Code of Federal Regulations.

4.6.2 Contractor is responsible for safety of the job Site for employees of Contractor as well as for members of the general public and others who may drive or walk through or be at the Site.

4.6.3 Contractor recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to: (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work and stored On-Site or Off-Site; and (iii) all other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction; and (iv) the owners or tenants of adjacent property and their patrons, employees and invitees.

4.6.4 Contractor assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work.

4.6.5 Contractor must provide a "competent person' as required by O.S.H.A regulations. The "competent person" must be identified at the Pre-Construction Conference with City advised in writing of any changes.

4.6.6 The "competent person" must make routine daily inspections of the Site and must hold weekly safety meetings with Contractor's personnel, Subcontractors and others as applicable.

4.6.7 Contractor and Subcontractors must comply with all legal and regulatory requirements relating to safety, as well as any City specific safety requirements set forth in the Contract Documents, provided that such City-specific requirements do not violate any applicable legal and regulatory requirements.

4.6.8 Contractor will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Project Manager and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

4.6.9 Contractor's responsibility for safety under this Section is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters, and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injury, losses, damages or accidents resulting from their performance of the Work.

4.6.10 As between City and Contractor, Contractor is responsible to City for any and all the safety issues relating to the Work on the Project. Contractor must administer and manage the safety program. This will include, but not necessarily be limited to review of the safety programs of each Subcontractor. Contractor must monitor the establishment and execution of compliance with all applicable regulatory and advisory agency construction safety standards. Contractor's responsibility for review, monitoring, and coordination of the Subcontractor's safety programs will not extend to direct control over execution of the Subcontractors' safety programs. Notwithstanding Contractor's safety obligations to City, it is agreed and understood that each individual Subcontractor will remain controlling employer responsible for the safety programs and precautions applicable to its own work and the activities of other's work in areas designated to be controlled by such Subcontractor for purposes of workers compensation insurance coverage.

4.6.11 Nothing in this agreement will relieve Contractor of his responsibility to maintain traffic, structures, etc., as noted on the Plans, Specifications, and Project Specific Conditions. Contractor is responsible to provide all necessary shoring, bracing and trench support as is necessary to maintain traffic structures, etc., as stipulated in the Plans, Specifications, and Special Provisions. If the stability of adjoining building, walls, roadways, etc., is endangered by Contractor's excavation, shoring, bracing, or under pinning must be provided as necessary to ensure project safety. Cost for shoring, bracing, underpinnings, and trench support will be included in the appropriate items listed in the Contract Price, and no additional payment will be made for this work.

4.7 MATERIALS QUALITY, SUBSTITUTIONS, AND SHOP DRAWINGS

4.7.1 Quality Control and Quality Assurance Testing.

4.7.1.1 All construction materials to be used or incorporated in the Project are subject to inspection, Quality Control & Quality Assurance Testing, and approval or rejection by City. Any material rejected by City must be removed immediately and replaced in an acceptable manner to City at no additional cost to City. When QC/QA tests indicate noncompliance with the Contract Documents, retesting must be performed by the same testing laboratory that performed the tests that indicated noncompliance.

4.7.1.2 The Contractor must establish, provide, and maintain an effective Quality Control Testing Program (QCTP). The Contractor must develop his own program or procure the services of a consultant. In either case, the party performing the tests must be currently certified by the National Bureau of Standards in the National Voluntary Laboratory Accreditation Program (NVLAP) for construction services or the AASHTO Accreditation Plan (AAP) for Soils, Asphalt and Concrete. The Contractor must provide all support necessary to perform QC and QA testing and sampling (i.e. shoring for testing trench backfill, backhoes, motor graders, loaders, etc. to facilitate testing and sampling). The City will perform the QA testing.

4.7.1.3 The Contractor must submit a written QCTP to the City as a required submittal. The Contractor must not begin Work until the Quality Control Program has been reviewed and

accepted by the City. Resumes of all personnel that will be associated directly or indirectly with the QCTP must be included.

4.7.1.4 The QCTP must include, but not be limited to, on-site/field and laboratory testing of all material delivered to the Site and any existing materials or conditions pertinent to the project.

4.7.1.5 All testing must be under the direction of a Professional Engineer registered in the State of Arizona, knowledgeable in Materials Testing. All "Test Report" forms must be stamped by said Engineer.

4.7.1.6 The written QCTP will set forth the responsibilities of the engineer, project manager, supervisory personnel and each technician assigned to this project. Substitutions or replacement of personnel must require prior written approval by the City. All personnel must be proficient within their assigned duties and possess certification(s) commensurate with their position and responsibilities. The minimum certification(s) for each technician must be NICET Level II, Arizona Technical Testing Institute, American Concrete Institute, or other nationally recognized program applicable to the project and approved by the City of Chandler. The written QCTP must include a description of the required field and construction materials laboratory tests, including required frequencies that meet the minimums established herein.

4.7.1.7 The Contractor must establish a system to record and report all material test results. The daily test reports must include, but not be limited to:

a. Test designation;
b. Date of test;
c. Name of tester;
d. Location of test/sample (station and offset);
e. Product suppliers and product codes (as applicable);
f. Depth/elevation of test/sample;
g. Test result;
h. Control requirement(s);
i. Cause of rejection (if applicable);
j. Results of retests (if applicable); and
k. Remedial action (if applicable).

4.7.1.8 The Contractor must submit test results to the designated City representative.

4.7.1.9 The Contractor must also submit a weekly report to the City summarizing the testing and construction activities completed by emailing the report to the email addresses noted above. All weekly reports must be submitted simultaneously to the Contractor and the City of Chandler. The report must include individual summary sheets for each utility line, structure, and portion of the pavement section. Cores must be numbered sequentially throughout the Project. Re-cores must reference the original core by number and must contain the averaged values for thickness and density. Total pavement thickness must be reported**.** Vertical location of tests for underground utilities must indicate the depth of the

excavation at the location of the test (i.e., cut to flow line [if applicable], depth to bottom or top of pipe, etc.). Density tests must be numbered sequentially. If the minimum number of tests has not been performed per the written QCTP, this must be stated in the weekly summary report with an explanation of the circumstances.

4.7.1.10 The City will maintain a copy of the Project test results and weekly reports in the Project file. In cases where quality control activities do not comply with the contract provisions, the City may:

a. Order the Contractor to replace ineffective or unqualified quality control personnel.

b. Order the Contractor to stop operations until appropriate corrective action is taken.

4.7.1.11 Although minimum testing requirements are specified herein, the Contractor bears full responsibility for the quality of the materials and their installation and may elect to perform additional testing beyond the requirements set forth herein to ensure compliance.

4.7.1.12 The Quality Control requirements contained in this Section are in addition to and separate from Quality Assurance Testing, which will be performed by the City of Chandler or its representative. If the Quality Assurance test results are not in agreement with the Quality Control test results, the Contractor will have the option to retain a third party consultant for referee tests. The third party consultant must meet the same requirements as the consultant performing the Quality Control Testing. The results of the third party will be binding. All cost incurred by the referee testing will be the Contractor's expense. If the Contractor elects not to retain a third party for referee testing, the City of Chandler test results will prevail.

4.7.1.13 Except as otherwise noted within this Section, Work or materials required by this Section are non- pay items. Per MAG Section 101, a non-pay item is an item of Work for which no separate payment will be made, the cost of which is to be included as an incidental cost for associated item(s) included on the Bid Schedule or Schedule of Values.

4.7.2 Trade Names and Substitutions.

4.7.2.1 Substitutions prior to bid will only be considered if in compliance with Arizona Revised Statute § 34-104.

4.7.2.2 Contractor, if requested by City, must submit Samples or any additional information that may be necessary to evaluate the acceptability of the substitution.

4.7.2.3 City will make the final decision and will notify Contractor in writing as to whether the substitution has been accepted or rejected.

4.7.2.4 If City does not respond within 15 working days, Contractor must continue to perform the Work in accordance with the Contract Documents and the substitution will be considered rejected.

4.7.3 Shop Drawings.

4.7.3.1 Contractor must prepare and submit Shop Drawings which show details of all Work to insure proper installation of the Work using those materials and equipment specified under the approved Plans and Specifications.

4.7.3.2 Contractor must submit a schedule of Shop Drawing submissions, which avoids bulk submissions to the extent reasonably possible, with the Project Schedule for City approval. The schedule of Shop Drawing submissions must include all of the items for which Shop Drawings are required by the Contract Documents, including the Specifications. Unless otherwise noted, Shop Drawings will not be required for items specified or detailed in the Uniform Standard Specifications and Details or the Technical Specifications.

4.7.3.3 Shop Drawings must be numbered consecutively for each Specification section and must accurately and distinctly present the following:

a. All working and erection dimensions.

b. Arrangements and sectional views.

c. Necessary details, including complete information for making connections between work under this Contract and work under other Contracts.

d. Kinds of materials and finishes.

e. Parts list and description thereof.

4.7.3.4 Each Drawing or page must include:

a. Project Name, City of Chandler Project Number and descriptions.

b. Submittal date and space for revision dates.

c. Identification of equipment, product or material.

d. Name of Contractor and Subcontractor.

e. Name of Supplier and Manufacturer.

f. Relation to adjacent structure of material.

g. Physical dimensions clearly identified.

h. ASTM and Federal Specifications references.

i. Identification of and justification for deviations from the Contract Documents.

j. Contractor's stamp, initialed or signed, dated and certifying the review of submittal, certification of field measurements and compliance with Contract.

k. Location at which the equipment or materials are to be installed.

4.7.3.5 Location will mean both physical location and location relative to other connected or attached material. City will return unchecked any submittal, which does not contain complete data on the Work and full information on related matters.

4.7.3.6 Stock or standard drawings will not be accepted for review unless full identification and supplementary information is shown thereon in ink or typewritten form.

4.7.3.7 Contractor must schedule, prepare and submit all Shop Drawings in accordance with a time-table that will allow its suppliers and manufacturers sufficient time to fabricate, manufacture, inspect, test and deliver their respective products to the project Site in a timely manner so as to not delay the complete performance of the Work.

4.7.3.8 If the Shop Drawings show departures from the Contract requirements, Contractor must

make specific mention thereof in the Letter of Transmittal; otherwise review of such submittals by City will not constitute review of the departure. Review of the Drawings will constitute review of the specific subject matter for which the Drawings were submitted and not of any other structure, material, equipment, or apparatus shown on the Drawings.

4.7.3.9 The review of Shop Drawings will be general and will not relieve Contractor of responsibility for the accuracy of such Drawings, nor for the proper fitting and construction of the Work, nor for the furnishing of materials or Work required by the Contract. No construction called for by Shop Drawings will be initiated until such Drawings have been reviewed and approved by City.

4.7.3.10 The procedure in seeking review of the Shop Drawings will be as follows:

a. Contractor must submit complete sets of Shop Drawings and other descriptive data as specified in this Section.

b. After Contractor's submittal or resubmittal of Shop Drawings, if Contractor has submitted Shop Drawings in accordance with the City-approved submittal schedule, or upon resubmission, City will be provided with three (3) calendar weeks for review. Should City require additional review time above and beyond the three (3) calendar weeks, Contractor may ask for a time extension or monetary compensation, if they can present valid, factual evidence that actual damages were incurred by Contractor. City will determine the amount of the time extension or the monetary compensation to be awarded Contractor, if any, in accordance with City's Policy Statement for Calculating Delays and Damages, Appendix 1.

4.7.3.11 Contractor will be responsible for all extra costs incurred by City caused by Contractor's failure to comply with the procedure outline above.

4.7.4 Long Lead Time Items. Contractor must submit Shop Drawings, as required by the Engineer, on all long lead items to be furnished and installed as part of the project within 10 Days after the date of the executed Contract letter issued by City. In addition, Contractor must order all long lead items to be furnished and installed as part of this Project within 3 Days after receiving approved Shop Drawings. For all long lead times for which Shop Drawings are not required, Contractor must order said long lead items within 15 Days after the date of the executed Contract letter issued by City. Within 2 Days after ordering long lead items, Contractor must supply copies of all purchase orders, along with an accurate delivery schedule from the supplier.

4.7.5 Construction Water. If Contractor uses water from City's water system for construction water, Contractor must obtain a fire hydrant meter from City of Chandler Utility Services (480-782-2280) and all construction water must be obtained through the hydrant meter. Contractor must pay all fees related to the hydrant meter and all water bills for construction water. All cost for meters and construction water will be included in the Contract Price.

4.8 PROJECT RECORD DOCUMENTS

4.8.1 During the construction period, Contractor must maintain at the jobsite a full-size set of prints of the Construction Document Drawings and Shop Drawings for Project Record Document purposes.

4.8.2 Contractor must mark these Drawings to indicate the actual installation where the installation

varies from the original Construction Documents. Contractor must give particular attention to information on elements that will be concealed, which would be difficult to identify or measure and record later. Items required to be marked include but are not limited to:

a. Dimensional changes to the Drawings.

b. Revisions to details shown on Drawings.

c. Locations and depths of underground utilities.

d. Revisions to routing of piping and conduits.

e. Actual equipment locations.

f. Changes made by Change Order or Addendum.

g. Details not on original Contract Drawings.

4.8.3 Contractor must mark completely and accurately Project Record Drawing sets of Construction Documents.

4.8.4 Contractor must mark Project Record Drawings sets with red erasable colored pencil.

4.8.5 Contractor must note Request for Information (RFI) Numbers and Change Order numbers, etc., as required to identify the source of the change to the Construction Documents.

4.8.6 Contractor must submit Project Record Drawing sets and Shop Drawings to City or its representative for review and comment.

4.8.7 Upon receipt of the reviewed Project Record Drawings from City, Contractor must correct any deficiencies and omissions to the Drawings and submit the final original of the Project Record Drawings to City prior to Final Payment.

4.8.8 Project Manager will review the Project Record Drawings monthly prior to the date established for the Payment Request and will be the sole judge of acceptance of these Drawings.

4.9 WARRANTY AND CORRECTION OF DEFECTIVE WORK

4.9.1 Contractor warrants to City that the construction, including all materials and equipment furnished as part of the Work, will be new unless otherwise specified in the Contract Documents, of good quality, and free of defects in materials and workmanship. Contractor's warranty obligation excludes defects caused by abuse, alterations, or unreasonable failure to maintain the construction by persons other than Contractor, subcontractors, or others under Contractor's control. Nothing in this warranty will limit any manufacturer's warranty which provides City with greater warranty rights than set forth herein or in the Contract. Contractor will provide City with all manufacturers' warranties and operation and maintenance manuals upon substantial completion of the Work. Contractor's warranty must be for one (1) year, in accordance with MAG Specification § 108.8, and will commence for all portions of the Work upon Final Acceptance of the entire Work as determined by City under the Contract. All statutory or other warranties, express or implied, related to latent defects will remain in force and are not limited by this provision.

4.9.2 City May Stop the Work. If the Work is defective, or Contractor fails to supply sufficient skilled workmen or suitable materials or equipment, City may order Contractor to stop the Work without cost to City, or any portion thereof, until the cause for such order has been

eliminated; however, this right of City to stop the Work will not give rise to any duty on the part of City to exercise this right for the benefit of Contractor or any other party.

4.9.3 Correction or Removal of Defective Work.

4.9.3.1 If required by City, Contractor must promptly, without cost to City and as specified by City, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by City, remove it from the Site and replace it with non-defective Work. Contractor must correct any Work which may be displaced in correcting, removing or replacing defective Work. No compensation will be allowed Contractor for such removal, replacement or remedial Work. Contractor must reimburse City for costs incurred by City due to such correction or removal including but not limited to additional expenses for inspection, testing or observation and for repeated reviews by the City or Design Professional.

4.9.3.2 Upon failure on the part of the Contractor to comply within a reasonably prompt time with any written order of City to correct or remove defective Work, City has authority to cause nonconforming materials or rejected Work to be remedied, removed, or replaced at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.4 City May Correct Defective Work. If Contractor fails within a reasonable time after written notice of City to proceed to correct defective Work or to remove and replace rejected Work as required by City or if Contractor fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), City may, after 7 Days' written notice to Contractor, correct and remedy any such deficiency. To the extent necessary to complete corrective and remedial action, City may exclude Contractor from 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 City has paid Contractor, but which are stored elsewhere. Contractor must allow City, city representatives, agents and employees such access to the Site as may be necessary to enable City to exercise City's rights under this Section. All direct and indirect costs of City in exercising such rights will be charged against Contractor in an amount verified by City representative, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs will include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of Work or others destroyed or damaged by correction, removal or replacement of Contractor's defective Work. Contractor will not be allowed an extension of the Contract Time because of any delay in Contractor's performance of the Work attributable to the exercise by City or City's rights hereunder.

4.9.5 Correction or Removal of Unauthorized Work.

4.9.5.1 Any Work done beyond the lines and grades shown on the Drawings or established by the Design Professional or any changes in, additions to, or deductions from the Work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered remedied, removed, or replaced at the Contractor's expense.

4.9.5.2 Upon failure on the part of the Contractor to comply promptly with any order of the City, City will have authority to cause unauthorized Work to be remedied, removed, or replaced

at the Contractor's expense and to deduct the costs from any moneys due or to become due the Contractor.

4.9.6 Correction Period - One Year Guarantee.

4.9.6.1 If, within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by law 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, Contractor must promptly, without cost to City and in accordance with City's written instructions, either correct such defective Work, or, if it has been rejected by City, remove it from the Site and replace it with non-defective Work. 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, City may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, must be paid by Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Contract Documents.

4.9.6.2 If, in the opinion of the City, defective Work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the City or to prevent interruption of operation of the City, the City will attempt to give the notice required by this Section. If the Contractor cannot be contacted or does not comply with the City's request for correction within a reasonable time as determined by the City, the City may, notwithstanding the provisions of this Section, proceed to make such correction or provide such attention; and the costs of such correction or attention will be charged against the Contractor. Such action by the City will not relieve the Contractor of the guarantees required by this Section or elsewhere in the Contract Documents.

4.9.6.3 This Section does not in any way limit the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a guarantee for a longer period. The Contractor agrees to act as co-guarantor with such manufacturer or supplier and must furnish the City all appropriate guarantee or warranty certificates upon completion of the Project. No guarantee period, whether provided for in this Section or elsewhere, will in any way limit the liability of Contractor or their sureties or insurers under the indemnity or insurance provisions of these General Conditions and the Project Specific Special Conditions.

4.9.7 Acceptance of Defective Work.

4.9.7.1 If, instead of requiring correction or removal and replacement of defective Work, City may accept Work when in the best interest of the City to do so with appropriate monetary credit from Contractor. If any such acceptance occurs prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after final payment, an appropriate amount must be paid by Contractor to City.

4.9.7.2 Alternatively, City may require Contractor to furnish at Contractor's expense, a special performance guarantee or other surety prior to acceptance of defective work.

4.9.8 The Warranty period begins on the Final Acceptance date noted in the Certificate of Completion, irrespective of early completion by some Subcontractors of their work.

4.9.9 Contractor's warranty obligation must be in accordance with MAG Specifications.

4.9.10 Nothing in the warranties contained in the Contract Documents are intended to limit any manufacturer's warranty which provides City with greater warranty rights than set forth in this Section or the Contract Documents. Contractor must provide City with all manufacturers' warranties prior to Substantial Completion, if applicable, or Final Acceptance.

4.9.11 Contractor agrees that it will be responsible to manage and administer the correction of any Work that is not in conformance with the Contract Documents during the warranty periods set forth in this Section, or during any longer periods to the extent required by the Contract Documents. A progress payment, or partial or entire use or occupancy of the Project by City, will not constitute acceptance of Work not in accordance with the Contract Documents.

4.9.12 When notified of a warranty issue, Contractor must respond in writing within 48-hours and must perform warranty Work as soon as material for said repairs are available (as judged solely by City), and in any event Contractor must, take immediate steps to commence and complete correction of nonconforming Work no later than the time period set forth in City's written notification in accordance with the Contract Documents. This includes the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If defects develop which are determined by City to be an emergency, City will notify Contractor, via the most expeditious means regarding the nature and condition of the defects. In turn, Contractor must immediately dispatch necessary forces to correct the defect or the emergency condition in accordance with Contract Documents.

4.9.13 The time periods referenced in this Section apply only to Contractor's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies that City may have regarding Contractor's other obligations under the Contract Documents.

4.9.14 Without limiting the foregoing or anything in these General Conditions or the Contract to the contrary, Contractor must obtain and provide to City all warranties for any portion of the Project offered by the manufacturer, installer or provider thereof. City and the user of the facility will have the right to the full value and benefit of all such warranties. Contractor must ensure all such warranties are fully transferrable to facilitate the full value of this Section.

4.9.15 Contractor's warranty excludes damages or defects caused by abuse, alterations to the Work not executed by or through Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage.

4.9.16 In the event of any noncompliance with this entire Section 4, City may require Contractor to stop or suspend the Work in whole or in part.

SECTION 5 - CITY RESPONSIBILITIES

5.1 CITY PROJECT MANAGER AND INSPECTORS

5.1.1 Project Manager is responsible for providing City-supplied information and approvals in a timely manner to assist Contractor to fulfill its obligations under the Contract Documents.

5.1.2 Project Manager will also provide Contractor with prompt notice when it observes any failure on the part of Contractor to fulfill its contractual obligations, including any default or defect in the Project or non-conformance with the Drawings and Specifications.

5.1.3 City may utilize Field Inspectors to assist Project Manager during construction in observing performance of Contractor. City's use of Inspectors is for the purpose of assisting Project Manager.

5.1.4 The Inspectors are authorized to inspect all Work and materials furnished. Such inspections may extend to all or part of the Work and to preparation, fabrication or manufacture of the materials to be used. The Inspectors have the authority to issue instructions contrary to the Construction Documents if approved and coordinated with the directions of Project Manager.

5.1.5 The Inspectors have the authority to reject work or materials until any questions at issue can be decided by Project Manager.

5.1.6 The use of Inspectors by City will not make City responsible for or give City control over construction means, methods, techniques, sequences or procedures or for safety precautions or programs or responsibility for Contractor's failure to perform the Work in accordance with Contract Documents. The Inspectors are not authorized to direct any of Contractor's activities, employees or Subcontractors.

5.2 **DESIGN PROFESSIONAL SERVICES**

City may contract separately with one or more Design Professionals to provide construction administration of the Project. The Design Professional's Contract, as well as other firms hired by City may be furnished to Contractor. Contractor does not have the right to limit or restrict or reject any Contract modifications that are mutually acceptable to City and Design Professional.

5.3 **CITY'S SEPARATE CONTRACTORS**

City is responsible for all work performed on the Project or at the Site by separate contractors retained by City. City will contractually require its separate contractors to reasonably cooperate with, and reasonably coordinate their activities so as not to interfere with Contractor in order to enable Contractor to timely complete the Work consistent with the Contract Documents. Contractor must immediately notify the Project manager, and address the matter in the next monthly status report, if any activities of such separate contractors are expected to interfere, or are interfering, with Contractor and such interference will or could result in any delay in Contractor's performance of the Work.

5.4 **PERMIT REVIEW AND INSPECTIONS**

5.4.1 If requested by Contractor, Project Manager will provide assistance and guidance in obtaining necessary reviews, permits and inspections.

5.4.2 The regulating agencies of City, such as Development and Sustainability, Fire and Planning Departments, enforce legal requirements. The enforcement activities of City are independent and separate from this Agreement.

5.5 **PLANS AND SPECIFICATIONS TO THE CONTRACTOR**.

Contractor will be provided up to five copies of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request,

at the cost of reproduction.

SECTION 6 - CONTRACT TIME

6.1 CONTRACT TIME

6.1.1 The Contract Time will start with the Notice to Proceed ("NTP") and end with Final Acceptance.

6.1.2 Beginning on the date of the NTP, Contractor must begin to fulfill Contractor's obligations under the Contract. Contractor's obligations include providing City and other agencies with any submittals required by the Project Specific Special Provisions, including but not limited to, an approved Project Schedule, Traffic Control Plans, and a Stormwater Pollution Prevention Plan. Contractor must submit all such required submittals before any physical construction work commences on the Site. NTP does not authorize construction work until all contract insurance, bonds, and schedules are submitted to and accepted by the City.

6.1.3 The Contract Time will be as set forth in the Project Schedule. Contractor agrees that it will commence performance of the Work and complete the Project through both Substantial Completion and Final Acceptance within the Contract Time.

6.1.4 Time is of the essence of this Contract, for the Project, for the Work, and for each phase and designated Milestone thereof.

6.1.5 Failure of Contractor to perform any covenant or condition contained in the Contract Documents within the time periods specified herein, will constitute a material breach of this Contract entitling City to terminate the Contract unless Contractor applies for and receives an extension of time, in accordance with the procedures set forth in the Contract Documents.

6.1.6 Failure of City to insist upon the performance of any covenant or condition within the time periods specified herein, will not constitute a waiver of Contractor's duty to perform every other covenant or condition within the designated periods, unless a specific waiver is granted in writing for each such covenant or condition.

6.1.7 City's agreement to waive a specific time provision or to extend the time for performance will not constitute a waiver of any other time provisions contained in the Contract Documents. Failure of Contractor to complete performance promptly within the additional time authorized in the waiver or extension of time agreement constitutes a material breach of this Contract entitling City to all the remedies set forth herein or provided by law.

6.2 PROJECT SCHEDULE

6.2.1 The Project Schedule must be in Microsoft Project standard file format, must be updated and maintained throughout the Contract Time, and must contain the following:

6.2.1.1 Detailed representation of all activities for the project, both on-site construction and major procurement. All significant activities together with the resource loading requirements for each and all items appearing on the schedule of values or bid schedule for progress payments must be shown on the Project Schedule or in attached transmittal letter as described in Section 6.2.8.

6.2.1.2 Dependencies between activities must be indicated so that it may establish as to the effect the progress of any one activity would have on other activities and on the Schedule.

6.2.1.3 Activities for submission, review, and approval of all required submittals.

6.2.1.4 An amount of time will be established prior to the final completion date for "punch list and cleanup". No other activities will be scheduled during this period. Punch list and cleanup must be shown on the Project Schedule and must be entirely completed prior to the expiration of the Contract Time.

6.2.2 Within 10 Days of receipt of City's comments, Contractor must make all required corrections, adjustments, and additions to complete the Project Schedule and resubmit to City for review. City's review of and response to the Project Schedule is for the purpose of: (1) City planning and staffing for the Project as may be required from time to time; (2) ensuring Contractor's general conformance with the scheduling requirements of the Contract Documents and completion of the Project within the Contract Time; and (3) monitoring and evaluating the construction status for purposes of approving monthly progress payments. Acceptance of a submitted schedule by City should in no way be construed as an affirmation or admission that the schedule is reasonable or workable by Contractor. The responsibility for completing the Work on the Project within the Contract Time remains the obligation of Contractor. City's review does not relieve Contractor from compliance with the requirements of the Contract Documents or be construed as relieving Contractor of its complete and exclusive control over the means, methods, sequences and techniques for executing the work.

6.2.3 The Project Schedule must show milestones, including milestones for City-furnished information, and must include activities for City-furnished material and construction by other contractors when those activities are interrelated with Contractor activities.

6.2.4 The Project Schedule must be revised as required by conditions and progress of the Work, but such revisions do not relieve Contractor of its obligations to complete the Work within the Contract Time, as adjusted in accordance with the Contract Documents. No modification to the Contract Documents or the Contract Time will be effective unless approved in advance by City.

6.2.5 For all items of materials and equipment that are critical or may require long lead times to acquire, the Project Schedule must show dates for submission, review and approval of submittals, ordering, and delivery.

6.2.6 An updated Project Schedule must be submitted monthly to City as part of the Payment Request. The monthly submittal must include one full size plot of the entire schedule and one electronic copy containing the schedule in Microsoft Project standard file format. In addition, Contractor must, upon request by City, provide a copy of all submitted schedule data in electronic format which must be clearly labeled with the Project description, scheduling program name and version number, and schedule print/data date.

6.2.7 Contractor must provide City with a monthly status report with each Project Schedule detailing the progress of the Work, including: (i) if the Work is proceeding according to schedule, (ii) any discrepancies, conflicts, or ambiguities found to exist in the Contract Documents that require resolution, and (iii) other information detailing items that require resolution so as not to jeopardize the ability to complete the Work in the Contract Time.

6.2.8 With each Project Schedule submittal, Contractor must include a transmittal letter including the following:

a. Description of problem tasks, referenced to field instructions or requests for information (RFI's), as appropriate.

b. Current and anticipated delays including:

(i) Cause of the delay.

(ii) Corrective action and schedule adjustments to correct the delay.

(iii) Known or potential impacts and their delay on other activities, milestones, and their impact on the Substantial Completion and Final Acceptance dates.

(iv) Changes in construction sequence.

c. Pending items and status thereof including but not limited to:

(i) Time Extension requests;

(ii) Substantial Completion date status;

(iii) Final Acceptance date status.

d. If ahead of schedule, the number of calendar Days ahead.

e. If behind schedule, the number of calendar Days behind.

f. Other Project or scheduling concerns.

6.2.9 Critical Path Method (CPM).

6.2.9.1 Unless otherwise specified in the Contract, the Project Schedule must include a Critical Path Method (CPM) diagram schedule showing the sequence of activities, the interdependence of each activity and identifies the Critical Path.

6.2.9.2 The CPM diagram schedule must be in calendar Days and indicate duration, earliest and latest start and finish dates for all activities, and total Float Times for all activities except critical activities. The CPM diagram must be presented in a time scaled graphical format for the Project as a whole.

6.2.9.3 The CPM diagram schedule must indicate all relationships between activities.

6.2.9.4 The activities making the Project Schedule must contain sufficient detail to assure that adequate planning has been done for proper execution of the Work and such that it provides an appropriate basis for monitoring and evaluation the progress of the Work. Individual activities must not exceed 30 Days in length, in most cases.

6.2.9.5 The CPM diagram schedule must be based upon activities, which coincide with the Schedule of Values.

6.2.9.6 The CPM diagram schedule must show all submittals associated with each work activity and the review time for each submittal.

6.2.10 Float Time.

6.2.10.1 The total Float Time within the overall schedule is for the exclusive use of City, but City may approve Contractor's use of Float as needed to meet contract Milestones and

the Project completion date.

6.2.10.2 Contractor will not be allowed to sequence, hide, or reallocate Float Time through such strategies, as extending activity duration estimates to consume available Float, using preferential logic, or using extensive crew/resource sequencing, tec. No time extensions will be granted nor delay damages paid until a delay occurs which extends the Work beyond the Contract Time.

6.2.11 City-Caused Delays. City-caused delays on the Project, if any, may be offset by City-caused time savings (i.e., Critical Path submittals returned in less time than allowed by the Contract, approval of substitution requests and credit changes which result in savings of time to Contractor, etc.) In such an event, Contractor will not be entitled to receive a time extension or delay damages until all City-caused time savings are exceeded and the Contract Time is also exceeded.

6.2.12 Rain-Related Delays. Contractor is required, in preparing the Project Schedule to take into account all relevant weather conditions, including normal rainfall and distribution. No additional compensation will be given for any rain-related delays or impacts on the Work or the Project Schedule. No time extension will be granted in the Project Schedule unless the rainfall during the construction of Work is unusually severe, was not reasonably anticipated, and the total rainfall was significantly in excess of the normal rainfall for the Project Site location. Normal rainfall for the Project will be determined from the 10-year average rainfall for the Site as measured by the National Oceanic and Atmospheric Administration or comparable source of reliable information for rainfall in Chandler, Arizona. In addition, the excessive rainfall must have actually impacted Work activities on the Critical Path and caused delay beyond any remaining Float at the time of the rain- caused delay. The burden of documenting normal rainfall, the excessive rainfall and the impact on Critical Path activities is on Contractor. All other provisions in the Contract Documents relating to claims, including without limitation notice requirements, apply to any claim by Contractor for a rain delay.

6.2.13 City's "Policy Statement for Calculating Delays and Damages," Appendix 1 to these General Conditions, will apply to all claims of delay and delay damages.

6.2.14 Force Majeure. If Contractor is delayed or prevented from the performance of any Work required under this Contract by reason of acts of God or other causes beyond the control and without fault of Contractor (financial inability excepted), performance of that Work will be excused, but only for the period of the delay. The time for performance of the Work will be extended for a period equivalent to the period of delay.

6.3 SUBSTANTIAL COMPLETION

6.3.1 When Contractor considers that the Work, phase or a portion thereof, which City agrees in writing to accept separately, is substantially complete, City will prepare and submit to Contractor a comprehensive Punch List of items to be completed or corrected prior to Final Acceptance and Final Payment. Failure to include an item on such Punch List does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents.

6.3.2 Upon receipt of Contractor's Punch List, Project Manager will make an inspection to determine whether the Work or designated portion thereof is substantially complete. Project Manager may, at Project Manager's sole option, be assisted in such inspection by

the Design Professional for the Project. If the inspection by the Project Manager discloses any item, whether or not included on Contractor's Punch List, which is not sufficiently completed in accordance with the Contract Documents so that City can occupy or utilize the Work, phase or designated portion thereof for its intended use, Contractor must, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by Project Manager. In such case, Contractor must then submit a request for another inspection by Project Manager to determine Substantial Completion.

6.3.3 Certificate of Substantial Completion.

6.3.3.1 The Project Manager will not issue a Certificate of Substantial Completion unless and until the Work (or separable units or Phases as provided in the Contract Documents) is essentially and satisfactorily complete in accordance with the Contract Documents, such that the Project is ready for use by City for its intended purpose, opening to the general public, full occupancy or use by City (including, without limitation, all separate units, or rooms, facilities, access, income-generating areas, and all areas serving the general public, as applicable, must be ready for full-operation without material inconvenience or discomfort), including, to the extent applicable to the Work, the following: all materials, equipment, systems, controls, features, facilities, accessories and similar elements are installed in the proper manner and in operating condition, inspected and approved; surfaces have been painted; masonry and concrete cleaned with any sealer or other finish applied; utilities and systems connected and functioning; site work complete; permanent heating, ventilation, air condition, vertical transportation and other systems properly operating with proper controls; lighting and electrical systems installed, operable and controlled; paving completed, signage installed, and other Work as applicable, has been performed to a similar state of essential and satisfactory completion. A minor amount of Work, as determined by and at the discretion of the Project Manager, such as installation of minor accessories or items, a minor amount of painting, minor replacement of defective work, minor adjustment of controls or sound systems, or completion or correction of minor exterior work that cannot be completed as a result of weather conditions, will not delay determination of Substantial Completion. If prior written approval is obtained from City for purposes of Substantial Completion, specified areas of the entire Work or Project may be individually certified as Substantially Complete. In no event will Substantial Completion be deemed to have occurred unless and until: (i) a temporary certificate of occupancy has been issued by the appropriate Governmental Authorities (as applicable) and (ii) all terms and Work required under this Agreement have been fulfilled by Contractor and same will have also been approved and accepted by City, subject only to the Punch List items.

6.3.3.2 If requested by City, Contractor must complete and turn-over to City the Project on a phased basis. Each phase will have a separate inspection by the Project Manager, a Punch List generated, and then an inspection by City with final approval and acceptance only after the Project Manager's Punch List.

6.4 **PARTIAL UTILIZATION**

6.4.1 City at City's option may use and occupy any substantially completed parts of the Work which has specifically been identified in the Contract Documents, or which City, the Design Professional and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by City for its intended purpose, without significant interference with Contractor's performance of the remainder of the Work, provided, however, if the

portion of the Work to be used or occupied has not been found to be substantially complete, City must do so in accordance with Section 6.3 prior to such occupancy.

6.4.2 In lieu of the issuance of a Certificate of Substantial Completion as to part of the Work, City may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, City and Contractor agree in writing as to the division of responsibilities between City and Contractor for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

6.4.3 Substantial Completion of or City's beneficial occupancy of a part of the Project will not alter the fact that the one-year warranty for the whole Project starts at the date of Final Completion of the whole Project.

6.5 FINAL ACCEPTANCE

6.5.1 Unless otherwise expressly agreed to in writing by City, Final Acceptance must be obtained by no later than 30 Days (60 Days for federally funded contracts) after the date of Substantial Completion. Failure to timely obtain Final Acceptance will be a material breach of the Contract.

6.5.2 Upon receipt of written notice that the Work is ready for final inspection and acceptance, City and Contractor will jointly inspect to verify that the remaining items of Work have been completed. There will be no partial acceptance. Final Acceptance will not occur until all items of Work, including Punch List Items, have been completed to City's satisfaction as reflected in the written Final Acceptance.

6.5.3 Final Payment will not be due, owing, or paid by City until Final Acceptance is issued.

6.5.4 Landscape Establishment Period. Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will begin on the date of Final Acceptance of the Project and will run 90 Calendar Days thereafter. Landscape Establishment Period requirements are detailed in General Conditions Appendices, attached herein.

6.6 CONTINUATION OF WORK

6.6.1 Permitting Contractor to continue and finish the Work or any part of it after the time fixed for its completion (whether milestone, phase, Substantial Completion or Final Acceptance) or after the date to which the time fixed for any completion may have been extended, does not operate as a waiver by City of any rights under the Contract Documents, law or equity.

6.6.2 Furthermore, the timely completion of the Work being of the utmost importance under this Contract, notwithstanding the existence of one or more disputes between the parties concerning the scope of the Work, the Project Schedule, Contract Time, payments or any other matter, and further notwithstanding a party's invocation of the Dispute Resolution provisions specified in Appendix 6 of these General Conditions, unless City suspends the Contract or Contractor's performance pursuant to Section 10 of these General Conditions, Contractor will continue to prosecute the Work, including any Change Order work or Extra Work Orders, in a diligent and timely manner and not stop, slow down or impede by action or inaction the progress of the Work, including commencing performance of and thereafter completing any additional work called out in any Change Order or Extra Work Order issued by Project Manager with the approval of City, so long as City makes

payment to Contractor in accordance with Section 8 of these General Conditions.

SECTION 7 - CONTRACT PRICE

7.1 UNIT PRICE CONTRACTS

7.1.1 The Contract Price for all Unit Price Contracts will be the amount set forth in the Contract or Change Order multiplied by the verified quantity provided.

7.1.2 Measurements of quantities to determine the total Contract Price must be in accordance with MAG Specification §§ 109.1 and 109.2.

7.1.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2 CHANGE ORDERS

7.2.1 Unit Price Change Orders. The Change Order Price for all Unit Price Change Orders will be the amount set forth in the Change Order multiplied by the verified quantity provided.

7.2.2 Measurements of quantities to determine the total Change Order Price must be in accordance with MAG Specifications §§ 109.1 and 109.2.

7.2.3 The Unit Price may only be changed as set forth in Section 9 below.

7.2.4 MAG Specification § 109.4.1 is modified as follows: Before § 109.4.1, the following is added: Any deduction or increase in the Contract Price must be supported by a signed, written Change Order fully executed by City, and supported by such backup as the Project Manager may require. No adjustments in any Unit Prices will be allowed. Sections 109.4.1(A) and (B) and 109.4.2(A) are deleted in their entirety.

7.3 SALES TAX

Contractor is required to pay all applicable sales tax in accordance with the law of the state of Arizona and this cost must be included in all Contract Prices. When equipment, materials or supplies generally taxable to Contractor are eligible for a tax exemption due to the nature of the Project, Contractor must assist City in applying for and obtaining such tax credits and exemptions which will be paid or credited to City.

SECTION 8 - PAYMENT

8.1 PAYMENT FOR CONSTRUCTION SERVICES

8.1.1 Payment for the Work will be made in accordance with MAG Standard Specification § 109 as amended below.

8.1.2 Contractor must submit to City for review a completed Contractor Payment Request signed by Contractor, covering the Work completed as of the date of the Request and accompanied by such supporting documentation as is required by the Contract Documents and also as City may reasonably require. A Contractor Payment Request will not be considered complete unless it is accompanied by an updated Project Schedule and a certification that the on-site, red lined, as built Drawings are up to date. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably, securely stored at the Site or at another location (such as a bonded warehouse) agreed to in writing, the Contractor Payment Request must also be accompanied by such data,

satisfactory to City, as will establish City's title to the material and equipment and protect City's interest therein, including applicable insurance. Each subsequent Contractor Payment Request must include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied to discharge in full all of Contractor's obligations reflected in prior Contractor Payment Requests.

8.1.3 The Contracting Agency will retain 10 percent of all estimates as a guarantee for complete performance of the Contract in accordance with Arizona Revised Statutes Section 34-221 or 34-607, unless the Contractor elects to deposit securities in accordance with Arizona Revised Statutes Section 34-221, Paragraph C.5. or 34-607, Paragraph B.5.

8.1.4 The payment process functions as follows: Prior to the payment cycle date, Contractor must send a draft Contractor Payment Request to Project Manager. The Project Team will review the Request and agree upon any necessary adjustments. Contractor must certify the final Request by signing and returning to Project Manager.

8.1.5 When construction of the Project is fifty percent (50%) completed, Contractor may request payment of one-half of the retention pursuant to A.R.S. § 34-609(B)(3), subject to all of City's rights to withhold or offset payments, and other rights of City, under the Contract.

8.1.6 City reserves the right under A.R.S. § 34-609(B)(3) to reinstate the ten percent (10%) retention if City determines that satisfactory progress is not being made.

8.1.7 Contractor's Warranty of Title.

8.1.7.1 Contractor warrants and guarantees that title to all Work, materials and equipment covered by any Contractor Payment Request, whether incorporated in the Project or not, will pass to City at the time of payment, free and clear of all liens, claims, security interests, and encumbrances, provided that this will not preclude the Contractor from installing metering devices or other equipment of utility companies or municipalities, the title of which is commonly retained by the utility company or municipality.

8.1.7.2 No materials, supplies, or equipment for the Work under this Contract will be purchased subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest therein, or any part thereof, is retained by the seller or supplier.

8.1.7.3 Nothing contained in this Section will defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection, or any right under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Section must be inserted in all subcontracts and material contracts, and notices of its provision must be given to all persons furnishing materials for the Work when no formal contract is entered into for such materials.

8.2 PAYMENT UPON SUBSTANTIAL COMPLETION

8.2.1 No payment will be made upon Substantial Completion, except for a regularly-scheduled monthly progress payment, as allowed by Section 8.2.2.

8.2.2 No further payments will be made to Contractor until Final Acceptance.

8.3 FINAL PAYMENT

8.3.1 Subject to all of City's rights to withhold or offset payment, and other rights under the

Contract, Final Payment including remaining retainage will be paid only after:

a. Work has been fully completed (including completion of all incorrect or incomplete work items) and the written Final Acceptance has been issued by City;

b. Necessary operating manuals, any excess materials and supplies necessary for matching materials and supplies incorporated into the Work, acceptable sewer video results (if applicable), and complete "as-built" Drawings (including the Building Information Model, if required by the Contract Documents) have been delivered to City, as specified in this Section 8.4;

c. Full and unconditional lien waivers and releases by Contractor and any person performing labor or supplying material, machinery, fixtures, or tools for the Work have been delivered to Contractor;

d. All conditions and requirements imposed by City or any financing entity for the corresponding disbursement have been met; and

e. Contractor delivers to City a Contractor Payment Request requesting Final Payment.

8.3.2 Contractor must also submit a signed copy of Contractor's Affidavit Regarding Settlement of Claims, Appendix 3 to these General Conditions, and Certificate of Completion, Appendix 7 to these General Conditions, prior to Final Payment.

8.3.3 In addition, if required under the Project Specific Special Provisions, Contractor must compile a complete equipment list and maintenance manual to be submitted to City as a precondition to Final Payment. The list must include the following items for all equipment supplied under the Plumbing, Electrical, Air Conditioning, Elevator, and other Special Equipment Specifications:

a. Name, Model and Manufacturer.

b. Complete parts lists and Drawings.

c. Local source of supply for replacement parts along with suppliers' telephone numbers.

d. Local service organizations serving the equipment and their telephone numbers.

e. All tags, inspection slips, instruction packages, etc., removed from equipment must be properly identified as to pieces of equipment from which they were taken.

8.3.4 Contractor must also deliver to City, prior to Final Payment, one (1) digital (in the format specified by City), and if requested by City, one (1) hard copy, of any applicable Maintenance manuals. Each manual must include all manufacturer's operation and maintenance instructions and "as-built" Drawings with the list herein specified. It must also include all other diagrams and instructions necessary to properly operate and maintain the equipment, the name, address and telephone number of Contractor and all Subcontractors involved.

8.4 **CITY'S RIGHT TO WITHHOLD PAYMENT**

City may withhold payment to such extent as may be necessary in City's opinion to protect City from loss for which Contractor is responsible, including, without limitation, if any of the following conditions exist:

a. Defective Work not remedied;

b. Third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to City is provided by Contractor;

c. Failure of Contractor to make payments properly to Subcontractors or for labor, materials or equipment;

d. Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

e. Damage to City or another Contractor;

f. Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

g. Failure to carry out the Work in accordance with the Contract Documents; or

h. Contractor is in default of any of its other obligations under the Contract Documents.

8.5 **JOINT/DIRECT CHECKS**

To promote the timely completion and progress of the Work or when appropriate and necessary, payments to Contractor may be made jointly to Contractor and its employees, agents, Subcontractors and suppliers, or any of them. .

8.6 **PAYMENT NOT A WAIVER**

No payment (nor use or occupancy of the Project by City) will be deemed acceptance or approval of the Work or as a waiver of any claims, rights, or remedies of City.

8.7 **LIENS AND BOND CLAIMS**

Contractor must make all payments, in the time required, of all labor and materials furnished to Contractor in the course of the Work and must promptly furnish evidence of such payments as City may require. Contractor must pay when due all claims arising out of performance of the Work covered by this Contract for which a lien may be filed either against the real estate or leasehold interest of City, or against payments due from City to Contractor, or for which a claim may be made against any payment or performance bond or both. To the fullest extent permitted by law, Contractor agrees that no liens or other claims in the nature of a lien against the real estate, leasehold, or other interest of City, against payment due from City to Contractor, or against any payment or performance bond, must be filed or made in connection with the Work by any party who has supplied professional services, labor, materials, machinery, fixtures, tools, or equipment used in or in connection with the performance of this Contract, and Contractor agrees to remove or to cause to be removed any such liens or claims in the nature of a lien or bond claim within 10 Days upon receiving notice or obtaining actual knowledge of the existence of such liens or claim. In addition, Contractor agrees to defend, indemnify, and hold harmless City from and against any and all such liens and claims. This paragraph does not apply to claims and liens of Contractor due to non-payment for work performed.

8.8 **FINANCIAL RECORDKEEPING AND CITY'S AUDIT RIGHT**

8.8.1 Records for all Contracts between City and Contractor must, upon reasonable notice, be open to inspection and subject to audit, scanning, and reproduction during normal business working hours. Such audits may be performed by any City's representative or any outside representative engaged by City for the purpose of examining such records. City or its designee may conduct such audits or inspections throughout the term of this Contract and for a period of five years after Final Payment or longer if required by law. City's representatives may (without limitation) conduct verifications such as counting employees at the Site, witnessing the distribution of payroll, verifying information and amounts through interviews and written confirmations with Contractor employees, field and agency labor, Subcontractors, and vendors.

8.8.2 Contractor's "records" must include any and all information, materials and data of every kind and character, including without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may in City's judgment have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any Contract Document. Such records must include (hard copy, as well as computer readable data if it can be made available), written policies and procedures; time sheets; payroll registers; payroll records; cancelled payroll checks; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, negotiation notes, etc.); original bid estimates; estimating work sheets; correspondence; Change Order files (including documentation covering negotiated settlements); back-charge logs and supporting documentation; invoices and related payment documentation; general ledger, information detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of interest to City or the Project in connection with Contractor's dealings with City or the Project (all foregoing hereinafter referred to as "records") to the extent necessary to adequately permit evaluation and verification of any or all of the following:

a. Compliance with Contract requirements for deliverables;

b. Compliance with approved Plans and Specifications;

c. Compliance with § 14.9 below;

d. Compliance with Contract provisions regarding the pricing of Change Orders;

e. Accuracy of Contractor representations regarding the pricing of invoices; or

f. Accuracy of Contractor representations related to claims submitted by Contractor or any of their employees.

8.8.3 Contractor must require all payees (examples of payees include Subcontractors, Suppliers, Insurance Carriers, etc.) to comply with the provisions of this Section by including the requirements hereof in a written Contract Agreement between Contractor and payee. Contractor will ensure that all payees (including those entering into lump sum contracts) have the same right to audit provisions contained in this contract included in their contracts with Contractor.

8.8.4 City's authorized representative(s) (including, without limitation, Project Manager) must have reasonable access to Contractor's facilities, must be allowed to interview all current or former employees to discuss matters pertinent to the performance of this contract and must be provided adequate and appropriate work space, in order to conduct audits in compliance

with this Section.

8.8.5 If an audit inspection or examination in accordance with this Section, discloses overpricing or overcharges to City (of any nature) by Contractor or Contractor's Subcontractors in excess of $100,000 in addition to making adjustments for the overcharges, the reasonable actual cost of City's audit must be reimbursed to City by Contractor. Any adjustments or payments which must be made as a result of any such audit or inspection of Contractor's invoices or records must be made within a reasonable amount of time (not to exceed 90 Days) from presentation of City's findings to Contractor.

8.8.6 In addition to the normal paperwork documentation Contractor typically furnishes to City, Contractor agrees to furnish, upon written request from City, any of the documentation necessary for City to exercise its audit rights under this Section 8.8 in computer readable file formats (Word, Excel, or .pdf), as City may designate.

8.8.7 City, its authorized representative, and the appropriate agency, reserve the right to audit Contractor's records in compliance with local, state or federal policies, statutes or at City's discretion, within three (3) years of Final Acceptance of the Work.

SECTION 9 - CHANGES TO THE CONTRACT

9.1 **FIELD ORDERS**

City may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Times, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a written Field Order on the standard form approved and executed by City. Such Field Orders must be binding and Contractor must perform the change promptly. If Contractor believes that a Field Order justifies an increase in the Contract Price or Contract Time, Contractor may make a claim therefor as provided in Section 7.2.

9.2 **EXTRA WORK/CHANGES IN THE WORK**

9.2.1 City reserves the right to make such changes in the Plans and Specifications for the Work, as it may deem appropriate and any such change as set forth in a written Change Order must be deemed a part of this Contract as if originally incorporated herein.

9.2.2 In the event City and Contractor cannot agree on the terms of a Change Order, or when circumstances otherwise require, the Project Manager has the authority to direct the Contractor to perform extra work, if the work in question is an item not provided for in the Contract as awarded. The Project Manager will have the authority to determine, based upon factual evidence presented by the Contractor, whether the work in question is an item not provided for in the Contract as awarded. If the Project Manager directs the Contractor to perform extra work, the Project Manager's instructions will include a price that the Contractor cannot exceed in charging the City for the extra work. Upon receipt of the Project Manager's directions to perform extra work, the Contractor must promptly proceed with the extra work and document the actual cost thereof. Contractor's right to payment for extra work will be determined under Subsection 9.2.4 below. The Contractor is responsible to manage the extra work to ensure that the price limits set by the Project Manager are not exceeded. Contractor must perform the extra work and submit documentation for the actual cost of the extra work to the City. A Change Order will be issued to cover this work.

9.2.3 Contractor will not be entitled to payment for extra work unless a written Change Order, in form and content prescribed by City, has been executed by City. On all requests for Change Orders, Contractor must specify the increased or decreased costs and whether it believes any extensions of time will be necessary to complete its Work as modified by the Change Order. If extra work is performed under Subsection 9.2.2 above, a corresponding Change Order will be prepared, approved and processed by City before payment can be made to Contractor.

9.2.4 In general, pricing for Change Orders will include the same mark-up percentages that were in effect when the Contract was awarded. The cost or credit to the City resulting from a change in the Work is subject to Appendix 1 (Policy Statement for Calculating Delays and Damages) and will be determined, based on the type of pricing for the Contract involved, as follows:

a. By mutual acceptance of a lump sum properly itemized in a form acceptable to City;

b. By unit prices stated in the Contract Documents;

c. When the City determines that a Unit Price Book Job Order associated with a Job Order Contract requires a Change Order, by using the same Total Cost Data and CCI that are in effect when the Change Order is anticipated to be issued; or

d. By actual cost and a percentage fee covering overhead and profit, as follows:

(i) Contractor will perform the extra work and be compensated for actual cost of labor, materials and equipment.

(ii) Contractor will have the right to add the fee percentage applicable to the Work under the Contract, or if no such fee has been agreed to by the parties, not more than five percent (5%) to the Subcontractor's prices for authorized extra work performed solely by Subcontractors. Such percentage will include all of Contractor's charges for overhead, profit, administration and supervision.

(iii) Contractor or Subcontractor will have the right to add the fee percentage applicable to Work under the Contract for self-performed extra work, or if no such fee has been agreed to by the parties, Contractor's or Subcontractor's maximum total allowable additions for overhead, profit, administration and supervision will not exceed ten percent (10%) of actual verifiable labor, materials and equipment for such self- performed extra work.

9.2.5 Any agreement which modifies the terms of the Contract (including Change Orders) will be approved in writing by the Project Manager. Once properly executed by both parties, these modifications to the Contract will have the same effect as if they had been included in the original Contract.

9.3 ACCURACY OF CHANGE ORDER PRICING INFORMATION

9.3.1 Subject to Sections 9.3.2 through 9.3.4, signature by the contracting parties constitutes full accord and satisfaction between City and Contractor for all costs, damages, and expenses of whatever kind of nature, including delay, impact or acceleration damages, which may be occasioned by a Change Order of other modification of the Contract agreed to in writing.

9.3.2 Accurate Change Order Pricing Information: Contractor agrees that it is responsible for submitting accurate cost and pricing data to City to support its Fixed Price, Unit Price, or Cost Plus Change Order Proposals or other Contract Price adjustments under the Contract. Contractor further agrees to submit Change Order proposals with cost and pricing data which is accurate, complete, current, and in accordance with the terms of the Contract with respect to pricing of change orders. Contractor agrees that any "buy-out savings" on Change Orders will accrue 100% to Owner. "Buy-out savings" are defined as any savings negotiated by the Contractor with a Subcontractor or a Material Supplier after receiving approval of a Change Order amount that was designated to be paid to a specific Subcontractor or Supplier for the Approved Change Order work.

9.3.3 Right to Verify Change Order Pricing Information: Contractor agrees that City, through its designated representative, will have the right to examine, copy, and scan the records of the Contractor, Subcontractor or Sub-Subcontractor's records (during the Contract period and up to three years after final payment is made on the Contract) to verify the accuracy and appropriateness of the pricing data used to price all Change Order proposals or claims. Contractor agrees that if City determines the cost and pricing data submitted (whether approved or not) was inaccurate, incomplete, not current, or not in compliance with the terms of the Contract regarding pricing of Change Orders, an appropriate Contract Price adjustment will be made. Such post-approval Contact Price adjustments will apply to all levels of contractors and Subcontractors and to all types of Change Order proposals, specifically including Fixed Price, Unit Price, and Cost Plus Change Orders.

9.3.4 Requirements for Detailed Change Order Pricing Information: Contractor agrees to provide a detailed breakdown of allowable labor and labor burden cost (i.e., base wage rate of applicable classifications of workers, payroll taxes, and insurance and benefits costs). This information will be used to evaluate the potential cost of labor and labor burden related to Change Order work. It is intended that this information represent an accurate estimate of the Contractor's actual labor and labor burden cost components. Information is not intended to establish fixed billing or Change Order pricing labor rates. However, at the time Change Orders are priced, the submitted cost data for labor rates may be used to price Change Order work. The accuracy of any such agreed upon labor rate cost components used to price Change Orders will be subject to later audit. Approved Change Order amounts may be adjusted later to correct the impact of inaccurate labor cost components if the agreed upon labor cost components are determined to be inaccurate.

9.4 **EMERGENCIES**

In any emergency affecting the safety of persons or property, Contractor will act, at its discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price or Contract Time resulting from emergency work will be determined as provided in this Section.

9.5 **DIFFERING SITE CONDITIONS**

9.5.1 If Differing Site Conditions are encountered at the Project Site, then notice by the observing party must be given to the other party promptly before conditions are disturbed (to the extent practicable) and in no event later than 14 Days after first observance of the conditions. City will promptly investigate such conditions and, if City determines that Differing Site Conditions exist and they materially cause an increase in the cost of, or time required for, performance of any part of the Work, Contractor will be entitled to equitable adjustment in the Contract Price or Construction Schedule (and other time requirements), or both. If it

is determined by City that the conditions at the Project Site are not Differing Site Conditions and no change is justified, then City will so notify Contractor in writing, stating the reasons. Claims in opposition to such determination must be made within 14 Days after City has given notice of its decision. If City and Contractor cannot agree on an adjustment in the Contract Price or Construction Schedule (and other time requirements), the adjustment may be submitted to dispute resolution as provided these General Conditions.

9.6 **CHANGES IN LAWS, REGULATIONS, OR LEGAL REQUIREMENTS OR TAXES**

In the event of a material change in applicable Laws, Regulations, or Legal Requirements, or taxes subsequent to the date of the Contract by the parties, Contractor may be entitled to a Change Order, in City's discretion, to the extent Contractor can document to the satisfaction of City that such change significantly increases Contractor's actual cost of performance of the Work.

SECTION 10 -SUSPENSION AND TERMINATION

10.1 **SUSPENSION**

City may suspend the Contract and Contractor's performance in accordance with MAG Specifications § 105.1 and 108.7.

10.2 **TERMINATION BY THE CITY FOR CAUSE**

10.2.1 MAG Specifications § 108.11 applies to the Contract.

10.2.2 City may also terminate the Contract if City determines, in its sole discretion that Contractor has:

a. After prior written notice, refused or failed to supply enough properly skilled workers or proper materials;

b. After prior written notice, failed to make payment to Subcontractors for materials or labor in accordance with the respective agreements between Contractor and the Subcontractors;

c. After prior written notice, disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction;

d. After prior written notice, repeatedly failed to comply with written directives from City;

e. Is adjudged as bankrupt or insolvent;

f. Made a general assignment for the benefit of creditors;

g. Appointed a trustee or receiver for itself or any of its property;

h. Filed a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws; or

i. Otherwise breached a provision of the Contract Documents or any other contract between City and Contractor.

10.2.3 When any of the above reasons exist, City may terminate the Contract, without prejudice to any other rights or remedies of City, after giving Contractor and Contractors' surety, if any, 7 Days written notice of City's intent to terminate the Contract and Contractor's failure to cure any such reasons. Upon such termination, City may: (1) take possession of the Site and of all materials thereon owned by Contractor; or (2) finish the Work by whatever

reasonable method City may deem expedient. When City terminates the Contract for one of the reasons state above, Contractor will not be entitled to receive further payment until the Work is finished. If the unpaid balance of the Contract Price existing at the time of such termination exceeds the costs and expenses of finishing the Work and any other damages incurred by City, such excess will be paid to Contractor. If such costs, expenses and damages exceed such unpaid balance, Contractor must pay the difference to City. This obligation for payment will survive termination of the Contract.

10.3 **TERMINATION BY CITY FOR CONVENIENCE**

City may also terminate the Contract at any time for its convenience upon 7 Days written notice to Contractor specifying the termination date. In the event of termination which is not the fault, in whole or in part, of Contractor, City will pay to Contractor only such compensation, including reimbursable expenses, due for Work properly performed on the Project prior to the termination date. Upon any termination of the Contract, no further payments will be due from City to Contractor.

10.4 **A.R.S. § 38-511**

The Contract is subject to, and may be terminated by City in accordance with, the provisions of A.R.S. § 38-511.

SECTION 11 -INSURANCE AND BONDS

11.1 **INSURANCE REQUIREMENTS**

11.1.1 After Contract award, the Contractor must furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement may not be deemed to apply to required Worker's Compensation coverage.

11.1.2 The Contractor and any of its Subcontractors must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, the insurances set forth below.

11.1.3 The insurance requirements set forth below are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract.

11.1.4 The City in no way warrants that the minimum insurance limits contained in this Contract are sufficient to protect Contractor from liabilities that might arise out of the performance of the Contract services under this Contract by Contractor**,** its agents, representatives, employees, or Subcontractors and the Contractor is free to purchase any additional insurance as may be determined necessary.

11.1.5 Failure to demand evidence of full compliance with the insurance requirements in this Contract or failure to identify any insurance deficiency will not relieve the Contractor from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Contract.

11.1.6 Use of Subcontractors: If any Work is subcontracted in any way, the Contractor must execute a written agreement with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of the Contractor in this Contract.

The Contractor is responsible for executing the Contract with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

11.2 **MINIMUM SCOPE AND LIMITS OF INSURANCE**

11.2.1 The Contractor must provide coverage with limits of liability not less than those stated below.

11.2.1.1 Commercial General Liability-Occurrence Form. Contractor must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.2 Automobile Liability-Any Automobile or Owned, Hired and Non-Owned Vehicles. Contractor must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Contractor owned, hired, and non-owned vehicles assigned to or used in the performance under this Contract. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

11.2.1.3 Workers Compensation and Employers Liability Insurance. Contractor must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Contractor employees engaged in the performance of Work under this Contract and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

11.2.1.4 Builders' Risk/Installation Floater Insurance. The Contractor bears all responsibility for loss to all equipment or Work under construction. Unless waived in writing by the City the Contractor will purchase and maintain in force Builders' Risk/Installation Floater insurance on the entire Work until completed and accepted by the City. This insurance will be Special Causes of Loss policy form, (minimally including perils of fire, flood, lightning, explosion, windstorm and hail, smoke, aircraft and vehicles, riot and civil commotion, theft, vandalism, malicious mischief, and collapse), completed value, replacement cost policy form equal to the contract price and all subsequent modifications. The Contractor's Builders' Risk/Installation Floater insurance must be primary and not contributory.

a. Builders' Risk/Installation Floater insurance must cover the entire Work including reasonable compensation for architects and engineers' services and expenses and other "soft costs" made necessary by an insured loss. Builders' Risk/Installation Floater insurance must provide coverage from the time any covered property comes under the Contractor's control and or responsibility, and continue without interruption during course of construction, renovation and or installation, including any time during which any Project property or equipment is in transit, off Site, or while on Site for future use or installation. Insured property must include, but not be limited to, scaffolding, false work, and temporary buildings at the Site. This insurance must also cover the cost of removing debris, including demolition as may be legally required by operation of any law, ordinance, regulation or code.

b. The Contractor must also purchase and maintain Boiler and Machinery insurance with the same requirements as Builders' Risk/Installation Floater insurance cited above if the Work to be performed involves any exposures or insurable property normally covered under a Boiler and Machinery insurance policy or made necessary as required by law or testing requirements in the performance of this Contract/Agreement. The Contractor will be responsible for any and all deductibles under these policies and the Contractor waives all rights of recovery and subrogation against the City under the Contractor- Builders' Risk/Installation Floater insurance described herein.

c. Builders' Risk/Installation Floater Insurance must be maintained until whichever of the following first occurs: (i) final payment has been made; or, (ii) until no person or entity, other than the City, has an insurable interest in the property required to be covered.

d. The Builders' Risk/Installation Floater insurance must be endorsed so that the insurance will not be canceled or lapse because of any partial use or occupancy by the City.

e. The Builders Risk/Installation Floater insurance must include as named insureds, the City, the Contractor, and all tiers of Subcontractors and others with an insurable interest in the Work who will be named as additional insureds unless they are able to provide the same level of coverage with the City and Contractor named as additional insureds. Certificates must contain a provision that the insurance will not be canceled or materially altered without at least 30 Days advance notice to the City. The City must also be named as a Loss Payee under the Builders' Risk/Installation Floater coverage.

f. The Builders Risk/Installation Floater insurance must be written using the Special Causes of Loss policy form, replacement cost basis.

g. All rights of subrogation under the Builders Risk/Installation Floater insurance are, by this Contract/Agreement, waived against the City, its officers, officials, agents and employees.

h. The Contractor is responsible for payment of all deductibles under the Builders' Risk/Installation Floater insurance policy.

11.2.1.5 Pollution Liability Insurance (Including Errors and Omissions). For Job Orders, Pollution Liability Insurance is only required if applicable and determined on a project specific basis. Contractor must maintain Pollution Liability Insurance with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate for losses caused by pollution conditions including coverage for bodily injury, property damage, defense costs, clean-up costs, and completed operations that arise from the operations of Contractor as described in this Contract.

a. The policy must provide for complete professional service coverage, including coverage for pollution liability that is a result of a breach of professional duties.

b. The policy must provide for protection again claims for third-party bodily injury, property damage, or environmental damage caused for pollution conditions resulting from general contracting activities for which Contractor

is legally liable.

c. The policy must provide for cleanup costs when mandated by governmental entities, when required by law, or as a result of third-party claims.

d. Completed Operations Coverage must be kept in place for up to the statute of repose.

e. The policy must be endorsed to include the following additional insured language: "City, its elected officials, trustees, employees, agents, and volunteers must be named as additional insureds with respect to liability arising out of the activities performed by, or on behalf of Contractor".

f. If Work under this Contract requires the transportation of any hazardous material or regulated substances, Contractor must carry Auto Liability with a CA 9948 endorsement or equivalent.

g. If Work under this Contract requires the disposal of any hazardous materials from the job site, Contractor must obtain a certificate of insurance for Pollution Legal Liability from the disposal site operator with a limit of not less than $5,000,000 per loss, $5,000,000 aggregate.

11.3 **ADDITIONAL POLICY PROVISIONS REQUIRED**

11.3.1 Self-Insured Retentions or Deductibles. Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

11.3.2 The Contractor's insurance must contain broad form contractual liability coverage.

11.3.3 The Contractor's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees will be in excess of the coverage provided by the Contractor and must not contribute to it.

11.3.4 The Contractor's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

11.3.5 Coverage provided by the Contractor must not be limited to the liability assumed under the indemnification provisions of this Contract.

11.3.6 The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by the Contractor for the City.

11.3.7 The Contractor, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Contract for a minimum period of 3 years following completion and acceptance of the Work. The Contractor must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Contract insurance requirements, including naming the required Additional Insureds set forth herein.

11.3.8 If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and

reliance will not waive or alter in any way the insurance requirements or obligations of this Contract.

11.3.9 Insurance Cancellation During Contract Term.

11.3.9.1 If any of the required policies expire during the life of this Contract, the Contractor must forward renewal or replacement Certificates to the City within 10 Days after the renewal date containing all the required insurance provisions.

11.3.9.2 Each insurance policy required by the insurance provisions of this Contract must provide the required coverage and must not be suspended, voided or canceled except after 30 Days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then 10 Days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the require notice, the Contractor or its insurance broker must notify the City of any cancellation, suspension, non-renewal of any insurance within 7 Days of receipt of insurers' notification to that effect.

11.3.10 City as Additional Insured. The above-referenced policies are to contain, or be endorsed to contain, the following provisions:

11.3.10.1 The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, the Contractor including the City's general supervision of the Contractor; Products and Completed Operations of the Contractor; and automobiles owned, leased, hired, or borrowed by the Contractor.

11.3.10.2 The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.

11.4 **BONDS AND OTHER PERFORMANCE SECURITY**

11.4.1 After Contract award, Contractor must provide a Performance Bond and a Payment Bond, each in an amount equal to the full amount of the Contract Price.

11.4.2 Each such bond must be executed by a surety company or companies holding a Certificate of Authority to transact surety business in the State of Arizona, issued by the Director of the Arizona Department of Insurance and must be 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 Audit Staff Bureau of Accounts, U.S. Treasury Department. A copy of the Certificate of Authority must accompany the bonds. The Certificate must have been issued or updated within two (2) years prior to the execution of this Agreement. The bonds must be written or countersigned by an authorized representative of the surety who is either a resident of the state of Arizona or whose principal office is maintained in this state, as by law required.

11.4.3 The bonds must be made payable and be acceptable to City. The bond forms for the performance and payment bonds must be in the forms required under A.R.S. § 34-221, *et. Seq.,* as in Appendices 4 and 5 of these General Conditions.

11.4.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds

covering payment of obligations arising under the Contract Documents, Contractor must promptly furnish a copy of the bonds or must permit a copy to be made.

11.4.5 All bonds submitted for this Project must be provided by a company which has been rated AM Best rating of A- or better for the prior four quarters by the latest edition of the 'Results Best's Key Rating Guide (Property/Casualty)" published by the A.M. Best Company.

11.4.6 Personal or individual bonds are not acceptable.

11.4.7 If the surety on any Bond furnished by Contractor is declared a bankrupt or becomes insolvent, or Contractor's 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 this Section 11.4, Contractor must within 5 Days thereafter substitute another Bond and surety, both of which must be acceptable to City.

SECTION 12 - INDEMNIFICATION

12.1 To the extent permitted by law, the Contractor and its owners, officers, directors, agents, employees, and subconsultants (collectively "lndemnitor") must indemnify, save, and hold harmless the City and its officers, officials, agents, and employees (collectively "lndemnitee") from any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation, and litigation) (collectively "Claims") caused or alleged to be caused, in whole or in part, by the negligent, reckless, wrongful, or willful acts, errors, or omissions of Indemnitor in connection with this Agreement. This indemnity includes any Claim or amount arising out of or recovered under workers' compensation laws or on account of Indemnitor's failure to conform to any federal, state, or local law, statute, ordinance, rule, regulation, or court decree. Indemnitor must indemnify lndemnitee from and against any and all Claims, except those arising solely from lndemnitee's own negligent, reckless, wrongful, or willful acts, errors, or omissions. Indemnitor is responsible for primary loss investigation, defense, and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Indemnitor agrees to waive all rights of subrogation against lndemnitee for losses arising from or related to this Agreement. Indemnitor's obligations under this provision survive the termination or expiration of this Agreement.

SECTION 13 -DISPUTE RESOLUTION

13.1 All disputes arising out of or relating to the Contract, the Work or the Project, other than termination under Section 10, will be resolved pursuant to the Dispute Resolution process set forth in Appendix 6 of these General Conditions, and not pursuant to MAG Specifications § 110.

13.2 Contractor agrees that during any dispute between the parties, Contractor will continue to perform its obligations under the Contract until such dispute is resolved.

13.3 Notwithstanding any other provision in this Contract, City has the right to immediately file in court and pursue an action for a temporary restraining order and injunctive relief against Contractor if City determines that such action is necessary to protect its interests under the Contract, to obtain specific performance of any provision of the Contract, to advance the completion of the Project, or to protect health, welfare and safety.

SECTION 14 - MISCELLANEOUS PROVISIONS

14.1 **CONTRACT DOCUMENTS**

14.1.1 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Times for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards.

14.1.2 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 must be provided by Contractor whether or not specifically called for at no additional cost to City.

14.1.3 The Contract Documents establish the rights and obligations of the parties and include the Contract, Addenda (which pertain to the Contract Documents), Contractor's Bid or Proposal (including documentation accompanying the Bid and any post-Bid documentation submitted prior to Contract award) when attached as an exhibit to the Contract, the accepted Project Schedule, the Notice to Proceed, the Performance Bond, the Payment Bond, Project Design, Engineering and Specifications, these General Conditions, the Project Specific Special Provisions, Technical Specifications, Contract Drawings, as the same may be more specifically identified in the Contract, Change Orders, Work Change Directives, Field Orders and the written interpretations and clarifications of the Design Professional or City representative and Modifications issued after execution of the Contract. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents.

14.1.4 In the event of any inconsistency, conflict, or ambiguity between or among the Contract Documents, the Contract Documents will take precedence as follows from highest to lowest: Change Orders, Addenda, Contract, Project Specific Special Provisions, General Conditions, Technical Specifications, Drawings/Plans, Chandler Amendments to MAG Standard Specifications and Chandler Standard Details, and MAG Uniform Standard Specifications and Details for Public Works Construction. If applicable to this Contract, Federal Provisions prevail.

14.1.5 On the Drawings, given dimensions will take precedence over scaled measurements and large scale drawings over small-scale drawings.

14.1.6 Clarifications and interpretations of the Contract Documents will be issued by the Design Professional through the City.

14.1.7 The headings used in this Agreement or any other Contract Documents, are for ease of reference only and must not in any way be construed to limit or alter the meaning of any provision.

14.1.8 The Contract Documents form the entire agreement between City and Contractor. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

14.1.9 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party in the form of a Change

Order.

14.1.10 Re-Use of Documents. Neither Contractor nor any Subcontractor, manufacturer, fabricator, supplier or distributor will 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 the Design Professional; and they must not re-use any of them on extensions of the Project or any other project without written consent of City and the Design Professional and specific written verification or adaptation by the Design Professional.

14.2 **REFERENCE STANDARDS**

14.2.1 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, will 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 Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

14.2.2 The provisions of any such standard, specification, manual or code, or any instruction of a Supplier will not change the duties or responsibilities of City, Contractor, Design Professional or Project Manager, or any of their Subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor will any such provision or instruction assign to City, Contractor, Design Professional, or any of their 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.

14.3 **COMPLIANCE WITH ARIZONA LAW AND FEDERAL LAW**

14.3.1 Compliance with A.R.S. § 41-4401. Pursuant to the provisions of A.R.S. § 41-4401, the Contractor hereby warrants to the City that the Contractor and each of its subcontractors ("Subcontractors") must comply with all Federal Immigration laws and regulations that relate to the immigration status of their employees and the requirement to use E-Verify set forth in A.R.S. §23-214(A).

14.3.2 A breach of the Contractor Immigration Warranty constitutes a material breach of this Contract and subject to penalties up to and including termination of this Contract.

14.3.3 The City retains the legal right to inspect the papers of any Contractor or Subcontractor employee who works on this Contract to ensure that the Contractor or Subcontractor is complying with the Contractor Immigration Warranty. The Contractor agrees to assist the City in the conduct of any such inspections.

14.3.4 The City may, at its sole discretion, conduct random verifications of the employment records of the Contractor and any Subcontractors to ensure compliance with Contractors Immigration Warranty. The Contractor agrees to assist the City in performing any such random verifications.

14.3.5 The provisions of this Article must be included in any contract the Contractor enters into with any and all of its subcontractors who provide services under this Contract or any subcontract. "Services" are defined as furnishing labor, time or effort in the State of Arizona by a contractor or subcontractor. Services include construction or maintenance of any

structure, building or transportation facility or improvement to real property.

14.4 **HAZARDOUS ENVIRONMENTAL CONDITIONS**

14.4.1 Contractor will 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 Document to be within the scope of the Work. Contractor will 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.

14.4.2 If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition. Contractor must immediately:

a. Secure or otherwise isolate such condition;

b. Stop all Work in connection with such condition and in any area affected thereby; and

c. Notify City and promptly thereafter confirm such notice in writing.

14.4.3 City will promptly retain a qualified expert to evaluate such condition or take corrective action, if any.

14.4.4 Contractor will be responsible for any and all civil or criminal penalties, fines, damages, or other charges imposed by any regulatory agency or court for sewage discharges that are in violation of applicable statutes and laws and that are a result, direct or indirect, of work performed under this Contract. Contractor will also be responsible for reimbursement to City for administration, reporting, and tracking expenses required as a result of any spill event. In the event the regulatory agency or court imposes a probationary period, Contractor must post bond for the probationary period to ensure that all such costs are reimbursed to City. This responsibility will apply whether penalties are imposed directly on Contractor or any of its Subcontractors, or the City of Chandler. Contractor must defend and indemnify City against such penalties. Regulatory agencies may include, but are not limited to, the Arizona Department of Environmental Quality (ADEQ) and the United States Environmental Protection Agency (USEPA).

14.5 **COOPERATION AND FURTHER DOCUMENTATION**

Contractor agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of the Contract Documents.

14.6 **ASSIGNMENT**

Neither Contractor nor City will, without the written consent of the other assign, transfer or sublet any portion of this Agreement or part of the Work or the obligations required by the Contract Documents, any such assignment will be void, will transfer no rights to the purported assignee, and would be a material breach of the Contract.

14.7 **SUCCESSORS**

Contractor and City intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

14.8 **LAWFUL PRESENCE**

Pursuant to A.R.S. §§ 1-501 and 1-502, City is prohibited from awarding a contract to any

natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

14.9 **NO BOYCOTT OF ISRAEL CERTIFICATION**

By Contractor's signature on this Contract, Contractor certifies under A.R.S. § 35-393.01 that Contractor is not currently engaged in and for the duration of this Contract will not engage in a boycott of Israel.

14.10 **NO THIRD PARTY BENEFICIARY**

Nothing under the Contract Documents will be construed to give any rights or benefits in the Contract Documents to anyone other than City and Contractor, and all duties and responsibilities undertaken pursuant to the Contract Documents will be for the sole and exclusive benefit of City and Contractor and not for the benefit of any other party, unless otherwise expressly set forth in the Contract Documents.

14.11 **GOVERNING LAW AND VENUE**

The Agreement and all Contract Documents will be deemed to be made under, and will be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any court action to enforce any provision of the Contract or to obtain any remedy with respect hereto must be brought in the Superior Court, Maricopa County, Arizona, and for this purpose, each party hereby expressly and irrevocably consents to the jurisdiction and venue of such Court.

14.12 **SEVERABILITY**

If any provision of the Contract Documents or the application thereof to any person or circumstance will be invalid, illegal or unenforceable to any extent, the remainder of the affected provision, the remainder of the Contract Documents, and the application thereof will not be affected and will be enforceable to the fullest extent permitted by law.

14.13 **LEGAL REQUIREMENTS**

At all times relevant to its entry into this Contract and performance of the Services and the Work, Contractor must fully comply with all Laws, Regulations, or Legal Requirements applicable to City, the Project, and the Contract, including, without limitation, those set forth on Exhibit C of the Contract.

14.14 **PARTIAL INVALIDITY**

If any provision of the Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will nevertheless continue in full force without being impaired or invalidated in any way.

14.15 **ATTORNEYS' FEES**

Should either party to the Contract bring an action to enforce any provision of the Contract, the prevailing party will be entitled to recover reasonable attorneys' fees and costs in connection therewith.

14.16 **CONFLICT OF INTEREST**

14.16.1 Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, existing prior to the execution of the Contract. Further, Contractor agrees to disclose any financial or economic interest with the Project property, or any property affected by the Project, if Contractor gains such interest during the course of this Contract. If Contractor gains financial or economic interest in the Project during the course of this Contract, this may be grounds for terminating this Contract. Any decision to terminate the Contract must be at the sole discretion of City.

14.16.2 Contractor will not engage the services on this Contract of any present City employee who was involved as a decision maker in the selection or approval processes, or who negotiated or approved billings or Contract Modifications for this Contract.

14.16.3 Contractor agrees that it will not perform services on this Project for a contractor, subcontractor, or any supplier, not covered under this Contract.

14.17 **INDEPENDENT CONTRACTOR**

Contractor is and must be an independent contractor. Any provisions in the Contract Documents that may appear to give City the right to direct Contractor as to the details of accomplishing the Work or to exercise a measure of control over the Work means that Contractor must follow the wishes of City as the results of the Work only. These results must comply with all applicable laws and ordinances.

14.18 **NOTICE OF INJURY**

Should City or Contractor suffer injury or damage to their person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim must be made in writing to the other party within 7 Days of the first observance of such injury or damage.

14.19 **CONFIDENTIALITY**

Contractor, for the benefit of City, hereby agrees it will not release or cause or permit to be released to the public any press notices, publicity (oral or written) or advertising promotion relating to, any statement regarding, or any other public announcement or disclosure or cause or permit to be publicly announced or disclosed, in any manner whatsoever, the specific terms and conditions of this Agreement or any comment relating to the Project or the Site. Notwithstanding the foregoing, Contractor will be entitled to disclose the terms of the Agreement to the extent required by law or in the course of enforcing or defending a claim or action hereunder. Contractor must give City reasonably prompt notice of any disclosure or statement made pursuant to this provision.

14.20 **DATA CONFIDENTIALITY**

14.20.1 As used in the Contract, “data” means all information, whether written or verbal, including plans, specifications, renderings, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to the City in the performance of this Contract.

14.20.2 Contractor agrees that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to City in connection with the Contractor’s performance of this Contract is confidential and proprietary information belonging to City.

14.20.3 Except as specifically provided in this Contract, Contractor or its Subcontractors must not divulge data to any third party without prior written consent of City. Contractor or its Subcontractors must not use data for any purposes except to perform Work required under this Contract. These prohibitions will not apply to the following data provided Contractor has first given the required notice to City:

a. Data which was known to Contractor or its Subcontractors prior to its performance under this Contract unless such data was acquired in connection with Work performed for City;

b. Data which was acquired by Contractor or its Subcontractors in its performance under this Contract and which was disclosed to Contractor or its Subcontractors by a third party, who to the best of Contractor's or its Subcontractor's knowledge and belief, had the legal right to make such disclosure and Contractor or its Subcontractors are not otherwise required to hold such data in confidence; or

c. Data which is required to be disclosed by virtue of law, regulation, or court order, to which the Contractor or its Subcontractors are subject.

14.20.4 In the event the Contractor or its Subcontractors are required or requested to disclose data to a third party, or any other information to which the Contractor or its Subcontractors became privy as a result of any other contract with City, the Contractor must first notify City as set forth in this Section of the request or demand for the data. The Contractor or its Subcontractors must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure.

14.20.5 Unless prohibited by law, within 10 Days after completion of services for a third party on real or personal property owned or leased by City, the Contractor must promptly deliver, as set forth in this Section, a copy of all data to City. All data will continue to be subject to the confidentiality agreements of this Contract.

14.20.6 Contractor or its Subcontractors assume all liability for maintaining the confidentiality of the data in its possession and agree to compensate City if any of the provisions of this Section are violated by Contractor, its employees, agents, or Subcontractors. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section will be deemed to cause irreparable harm that justified injunctive relief in court. Contractor agrees that the requirements of this Section will be incorporated into all subcontracts entered into by Contractor. A violation of this Section may result in immediate termination of this Contract without notice.

14.21 **SURVIVAL**

All warranties, representations and indemnifications by Contractor must survive the completion or termination of this Agreement.

14.22 **COVENANTS AGAINST CONTINGENT FEES**

Contractor warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of City Council, or any employee of City has any interest, financially, or otherwise, in the firm. For breach or violation of this warrant, City will have the right to annul the Contract without liability or at its discretion to deduct from the Contract Price or consideration, the full amount of such commission,

percentage, brokerage, or contingent fee.

14.23 **NO WAIVER**

The failure of either party to enforce any of the provisions of the Contract Documents or to require performance of the other party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor will it affect the validity of the Contract Documents or any part thereof, or the right of either party to thereafter enforce each and every provision.

14.24 **NONEXCLUSIVE REMEDIES**

The remedies set forth in this Contract are cumulative and not exclusive, and failure to exercise any remedy (including, without limitation, any right to terminate) will not preclude any party from exercising any other right in seeking any other remedy available to it at law or in equity.

14.25 **PROJECT COMMUNICATIONS**

14.25.1 All communications concerning the performance of the Work or the Project will be provided to the designated Project Manager and Contractor's Representative set forth in Article 1 of the Contract. City may change the designated Project Manager and, subject to Section 4.4.20 of these General Conditions, Contractor may change Contractor Representative, by written notice to the other.

14.25.2 Project communications may be exchanged by e-mail, but email communications cannot change the terms of the Contract or the Scope of Work, or effectuate any change that requires a written Change Order.

14.25.3 When any provisions of the Contract Documents requires Contractor or the Design Professional to give written notice to City, it will be deemed to have been validly given if delivered in person to the person designated in the Contract Documents as Project Manager, or if delivered at or sent by registered or certified mail, postage prepaid, to the City Engineer addressed as follows:

To City:	City of Chandler Public Works & Utilities Department Attn: City Engineer P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
With a Copy to:	Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
With a Copy to:	Paul Ahlas, Construction Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008

To Contractor:	Mr. Shane Banks McCarthy Building Companies, Inc. 6225 N. 24th St., Ste. 200 Phoenix, AZ 85016

14.25.4 When any provisions of the Contract Documents requires City, Project Manager, or the Design Professional to give written notice to Contractor, it will be deemed to have been validly given if delivered in person to the person designated in the Contract Documents as Contractor's Resident Superintendent, or if delivered at or sent by registered or certified mail, postage prepaid, to Contractor at the last address in the Contract Documents or such substitute address which Contractor designates in writing, or to the business address known to the giver of notice.

14.26 **DRUG FREE WORKPLACE PROGRAM**

14.26.1 City has adopted a policy establishing a drug free workplace for itself and as a requirement for Contractors doing business with City, to ensure the safety and health of employees working on City projects.

14.26.2 Contractor must require a drug free workplace for all employees working under the Contract. Specifically, all employees of Contractor who are working under a Contract with City must be notified, in writing, by Contractor that they are prohibited from the manufacture, distribution, dispensation, possession or unlawful use of a controlled substance in the workplace.

14.27 Failure to require a drug free workplace in accordance with the City's policy may result in termination of the Contract and possible debarment form bidding on future City projects.

SECTION 15 - PROVISIONS APPLICABLE SOLELY TO GMP AND COST-BASED CONTRACTS, CHANGE ORDERS, AND JOB ORDERS

15.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 apply to GMP and Cost-Based Contracts, Change Orders, and Job Orders, together with the additional definitions set forth below.

Baseline Cost Model –
A breakdown and estimate of the scope of the Project developed by CM@Risk pursuant to Section 17.5 of these General Conditions.

CM@Risk or Construction Manager at Risk –
The person or firm selected by City to provide pre-construction and/or construction services as detailed in a Construction Manager at Risk Contract with City. In these General Conditions, the term "Contractor" includes CM@Risk under both Pre-Construction and Construction Services Contracts.

CM@Risk Fee or Contractor's Fee –
An agreed to percentage in an accepted GMP that represents the Contractor's fee for performance of the Work.

Contract Documents –
Where compensation under the Contract is based upon a GMP accepted by City, the term "Contract Documents" also includes the accepted GMP Proposal.

Contract Price –
Where compensation under the Contract based upon a GMP accepted by City, the term "Contract Price" refers to the GMP.

Cost-Based Contract, Change Order, or Job Order –
A Contract, Change Order, or Job Order where the Contract Price is based upon the actual cost of performing the Work, subject to the terms of the Contract Documents, including this Section 15. These would include those generally referred to as "Cost of the Work plus a Fee with a GMP," "Time and Materials," or "Cost Plus a Fee."

Cost of the Work –
The direct costs necessarily incurred by Contractor in the proper, timely, and complete performance on the Work. The Cost of the Work will include only those costs set forth in Section 15.2 of these General Conditions.

Deliverables –
The work products prepared by Contractor in performing the scope of work described in the Contract. Some of the major deliverables to be prepared and provided by Contractor during pre-construction may include but are not limited to: the Baseline Cost Model and Schedule that validate City's plan and budget, Construction Management Plan, Detailed Project Schedule, Schedule of Values, alternative system evaluations, procurement strategies and plans, Detailed Cost Estimates, construction market surveys, cash flow projections, GMP Proposals, Subcontractor procurement plan, Subcontractor agreements, Subcontractor bid packages, Supplier agreements, Constructability Review, Cost Control Log, Traffic control and phasing plans and others as indicated in this Contract or required by the Project Team.

Pre-Construction Services Contract –
The Contract entered into between City and the CM@Risk for Pre-Construction Services to be provided by the CM@Risk, including, without limitation, the generation of a GMP Proposal. If the GMP Proposal is accepted by City and a Construction Contract is entered into between City and CM@Risk, the duties, obligations and warranties of the CM@Risk under the Pre-Construction Services Contract survive and are incorporated into the resulting Construction Contract.

Pre-Construction Services –
The services to be provided under the Pre-Construction Services Contract, including Section 17 of these General Conditions.

Detailed Project Schedule –
The Detailed Project Schedule developed by the CM@Risk for the review and approval of the Project Manager in accordance with Section 17.3 of these General Conditions, if applicable.

General Conditions Costs –
Those costs set forth in Section 4 of Appendix 9 to these General Conditions.

GMP Plans and Specifications –
The plan and specifications upon which the Guaranteed Maximum price Proposal is based.

GMP Proposal –
The proposal of Contractor submitted pursuant to Section 17.7 of these General Conditions for the entire Work and/or portion (phases) of the Work.

Guaranteed Maximum Price or GMP –
The Guaranteed Maximum Price set forth in the Contract, Change Order, or Job Order if applicable.

15.2 **CONTRACT PRICE**

15.2.1 The Contract Price for all Contracts, Change Orders, and Job Orders based upon payment of the Cost of the Work plus a Fee with a GMP, time and materials, or cost-plus a fee will be the Cost of the Work incurred plus the Fee agreed to in writing by City, limited to the amount of the GMP, if agreed to. Unless otherwise expressly provided in the Contract, Change Order, or Job Order, all Cost Based pricing will be subject to and limited to GMP.

15.2.2 The Contract Price may only be changed as set forth in Section 9 above.

15.2.3 Only costs specifically designated as reimbursable costs are eligible for payment by City or may be charged against the Contract Price. All other costs will not be paid by City and will not be chargeable against the Contract Price.

15.2.4 Cost-Based Contracts. For Contracts, Change Orders, or Job Orders, reimbursable costs must be determined pursuant to Appendix 9 to these General Conditions, Cost of the Work, and not by MAG Specifications §109.5.

15.3 **ALLOWANCES**

15.3.1 Contractor must include in the Contract Price all Allowances stated in the Contract Documents and agreed to in writing by City. Items covered by these Allowances must be supplied for such amounts and by such persons as City may direct, provided Contractor will not be required to employ persons against whom Contractor makes a reasonable objection. Materials, labor, and equipment under an Allowance will be selected by City in accordance with a schedule to be mutually agreed upon by City, Design Professional and Contractor or otherwise in reasonably sufficient time to avoid delay in the Work.

15.3.2 Unless otherwise provided in the Contract Documents:

15.3.2.1 These Allowances must cover the cost to Contractor, less any applicable trade discount, of the materials, labor, and equipment required by the Allowances, delivered at the Site, and all applicable taxes;

15.3.2.2 Contractor's costs for unloading and handling on the Site, labor, installation costs, overhead, profit and other expenses relating to materials, labor, and equipment required by the Allowance must be included in the Contract Sum and not in the Allowance; and

15.3.2.3 Whenever the cost is more or less than the Allowance, the Contract Sum must be adjusted accordingly by Change Order, the amount of which will recognize the difference between actual costs for an Allowance item and the amount of the Allowance item and changes, if any, in handling costs on the Site, labor, installation costs, overhead, profit and other expenses.

15.4 **CONTINGENCY**
An agreed to amount in the GMP that may only be used in accordance with the terms set forth in these General Conditions and with prior written approval by the City.

15.4.1 Construction Contingency. This GMP includes a dollar amount listed as a Construction

Contingency which will be readily available for increased costs for subcontractors, material, and equipment subject to prior approval of City, which approval will not be withheld unreasonably. The Construction Contingency may also be used, at the discretion of City, to reimburse CM@Risk for unexpected costs due to (a) scope gaps between trade subcontractors; (b) contract default by trade subcontractors; (c) unforeseen field conditions, but only as defined in Section 9.5 above; (d) work completed to meet the intent of the design, but which was not indicated on the plans; (e) costs overruns not covered by allowances; (f) costs of corrective work not provided for elsewhere; and (g) implementation of any Recovery Plan. Cost for which CM@Risk desires to be paid from the Construction Contingency must be documented by CM@Risk on a time and materials basis and are subject to verification by City. If agreed to by City, a "Use of Contingency" form will be executed by both parties authorizing the actual cost of the work to be paid and included in the Work Item Direct Costs. The Construction Contingency is not allocated to any particular item of the Project but may be used for any portion of the work as determined above. Any amount not used in the Construction Contingency will belong to City and will reduce the GMP.

15.4.2 Owner's Contingency. This GMP also includes a dollar amount listed as an Owner's Contingency which may be used only by the City (owner department) for upgrades and changes in scope or other changes not already included within the intent of the Project Program. City will provide CM@Risk with a Work Change Directive authorizing CM@Risk to perform the additional work and to transfer funds from the Owner's Contingency to the Work Item Direct Costs category to be paid with such direct costs. These additional costs will be in an amount mutually agreed upon by CM@Risk and City or will be documented by CM@Risk on a time and materials basis and are subject to verification by City. Any amount not used in the Owner's Contingency will belong to the City and will reduce the GMP.

15.5 **REDUCTION IN RETENTION**

If the Contract Price is based upon a GMP, in order to receive payment of one-half of the retention as set forth in Section 8.1.5 above, Contractor must also submit to the Project Manager a complete accounting of the Actual Reimbursable Cost of the Work to date, including all such documentation (including, without limitation, invoices, subcontract, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the actual reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess amounts paid to Contractor will be refunded by Contractor to City. The Project Manager's determinations as to Actual Reimbursable Cost of the Work will be the basis of payment until final Project Closeout and Final Payment under the Contract.

15.6 **FINAL PAYMENT**

If the Contract Price is based upon a GMP, as a further condition precedent to Final Payment by City, Contractor must submit to the Project Manager a complete final accounting of the Actual Reimbursable Cost of the Work, including all such documentation (including, without limitation, invoices, subcontracts, subcontractor change orders, purchase orders, records of payment, etc.) as City may require, to establish whether the payments made to Contractor equal, exceed, or are less than the Actual Reimbursable Cost of the Work to date. Any excess payments by City, as determined by the Project Manager, will be deducted from the one-half retention payment to be made to Contractor, and any additional excess

amounts paid to Contractor will be refunded by Contractor to City. Disputes relating to the Final Cost of the Work will be subject to City's audit rights under Sections 8.8 above and 15.7 below, and the dispute resolution process under Section 13 above.

15.7 **OPEN BOOK**

On any GMP-based or Cost-Based Contract, Job Order, or Change Order, City may attend any and all meetings or discussions pertaining to the Project, including bid openings, and must have access to all books, invoices, accounts, memoranda, correspondence, and written communications or records of any kind pertaining to the Project, including without limitation, those stored in electronic format.

15.8 **DIFFERING SITE CONDITIONS AND/OR CHANGE IN LAWS**

A Change Order for increased costs under Section 9.5 or 9.6 above will only be considered or granted by City to the extent such actual, documented costs are justified.

SECTION 16 - PROVISIONS APPLICABLE SOLELY TO JOB ORDER CONTRACTS (JOC)

16.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Sections 2 and below will apply to all Job Order Contracts and Job Orders. In addition, the definitions set forth in Section 15.1 above will apply to all Cost-Based Job Orders.

Contract –
Includes the Job Order Master Agreement and Job Order Project Agreements issued and agreed to by City and JOC Contractor.

JOC Contractor's Coefficient –
A numerical factor that represents JOC Contractor total costs (indirect and direct costs, sales tax, profit, etc.) and other adjustments for market conditions.

Job Order Request for Proposal (RFP) –
The Request for Proposals issued by City for each Job Order Project Agreement relating to a specific Project.

Job Order Cost Proposal –
The Proposal submitted by JOC Contractor in response to a Job Order Request for Proposal (RFP) issued by City to develop a Job Order Project Agreement for a specific Project.

Guaranteed Maximum Price (GMP) Job Order –
Job Order under which JOC Contractor is compensated for actual costs incurred.

Job Order Project Agreement (Job Order) –
The agreement for a specific project, as it may be modified by all Change Orders, executed by the Parties, which incorporates the terms and conditions of the Job Order Master Agreement.

16.2 **ORDERING AND PROCESSING PROCEDURES FOR JOB ORDERS**

16.2.1 The process for developing and issuing a Job Order for a particular Project consists of three (3) procedures: (1) issuance of a RFP by City; (2) JOC Contractor's response to the RFP in the form of JOC Contractor's Job Order Cost Proposal; and (3) Issuance of a Job Order by City, as set for below.

16.2.2 RFP's For Job Orders

16.2.2.1 City will provide to JOC Contractor RFP with a Scope of Work (SOW) describing the Work to be performed, which may include special instructions and conditions, material submittal requirements, and, if applicable, a complete set of sketches, construction drawings and specifications for the Job Order.

16.2.2.2 Some Job Order RFP's will be issued by City without detailed sketches, drawing and specifications and will rely on JOC Contractor to produce them for City review and approval and is considered to be Pre-Construction and incidental design services included in JOC Contractor's overhead for GMP Job Orders. In addition JOC Contractor will not be reimbursed for any Pre-Job Order costs, including proposal preparation, attendance during negotiations, or site visits.

16.2.3 JOC Contractor's Job Order Cost Proposal

16.2.3.1 JOC Contractor must respond within ten (10) calendar days of the RFP date or site visit, whichever is later or as otherwise indicated on a case-by-case basis, by submitting JOC Contractor's Job Order Cost Proposal to the City representative.

16.2.3.2 Unless otherwise required under the terms of the RFP, JOC Contractor's Job Order Cost Proposal must include the following.

a. JOC Contractor's Job Order Cost Proposal in PDF and electronic format;

b. A Project Schedule and schedule of values that reflects the costs of each work element on the schedule. The schedule must show all milestones (e.g., permits, submittals, ordering materials, demolition, work phases, closeout and completion date); and

c. Necessary documentation will be required to indicate that adequate scoping, layout, setup and planning to accomplish the Work has been done. Examples of documentation that might reasonably be expected include sketches, drawings, calculations, catalog cuts and specifications produced to a level of detail and skill that could be expected of experienced, competent Project Managers with five or more periods experience in their respective trade.

16.2.3.3 JOC Contractor must select Subcontractors based on qualifications alone or on a combination of qualifications and price and must not select Subcontractors based on price alone. A qualifications and price selection may be a one-step selection based on a combination of qualifications and price or two-step selection. In a two-step selection, the first step must be based on qualifications alone and the second step may be based or a combination of qualifications and price or on price alone.

16.2.3.4 Upon request, JOC Contractor must provide City with copies of Subcontractor quotes and the basis for selection of each Subcontractor.

16.2.3.5 If City objects to a selected Subcontractor, City will make the objection and the reasons for the objection known to the JOC Contractor. JOC Contractor must then present an acceptable Subcontractor for the applicable discipline. City will not unreasonably object to or withhold approval of a Subcontractor.

16.2.3.6 For self-performed work, the City retains the right to have the JOC Contractor establish JOC

Contractor's costs by bidding their costs against at least three (3) other interested trade Contractors. No self- performed work will be allowed to be performed on a lump sum basis.

16.2.4 Issuance of Job Order

16.2.4.1 City Representative will compare the JOC Contractor's Job Order Cost Proposal with the City's estimate, schedules and other requirements, and then, if the City Representative determines it is in the best interest of City, arrange a meeting with JOC Contractor, at which time the JOC Contractor's Job Order Cost Proposal will be discussed and negotiated.

16.2.4.2 If the City Representative determines that it is in the best interest of the City, City will then issue a Job Order to JOC Contractor for execution.

16.2.4.3 Specific Job Orders may vary, but unless agreed to by City in writing otherwise, the content of Job Orders under the Contract will generally be as follow, all of which will be signed and/or initialed by JOC Contractor's designated representative:

a. The description of the Scope of the Work and Project Schedule (attached as Exhibit A to the Job Order);

b. The address or location of the Work;

c. The Contract Price for Work (Construction) included in the Project (attached as Exhibit B to the Job Order);

d. The name of the JOC Contractor representative for the Project;

e. The Drawings and Specifications for the Project;

f. If any shop drawings, project date and/or samples are required for the Job Order, the date for delivery of each required item (included in the Project Schedule, Exhibit A to the Job order); and

g. Project Specific Provisions, if any, in Exhibit A to the Job Order, including, without limitation, whether any of the following are required: Pre-Construction Conference, weekly progress meetings, field office, storage enclosure, materials and equipment handling facility, submittals, shop drawings, product data, equipment list, samples, project manual, schedule of values, Construction progress schedule, narrative reports, progress report, progress charts, progress photographs, materials status report, Construction diagram, Construction status report, operation and maintenance data, operating maintenance instructions and parts list, and as-build drawings.

16.2.5 Job Order Intent. Each Job Order will be interpreted to include all items reasonably necessary to complete the Project under that Job Order as described in the scope of the Work in that Job Order. All Work must be performed in a professional manner and all materials used must be new and of the highest quality and of the type best adapted to their purpose, unless otherwise specified. The Notice to Proceed date, and the award date established therein, will be deemed an integral part of the Job Order the same as if set forth therein.

16.3 **INCIDENTAL DESIGN SERVICES**

16.3.1 This effort includes all "extensions of design" for systems that are typically specified in

a performance oriented manner by consultants and designers. Examples include: fire sprinkler systems, fire alarm and sprinkler systems, DDC controls, control systems, prefabricated metal building and similar situations. These designs are normally provided under submittals as a shop drawing with engineering backup and as appropriate, seals of registered engineers specializing in the particular system.

16.3.2 Incidental design includes all documents, sketches, schematic diagrams, floor plan layouts, equipment schedules and other documents produced by the JOC Contractor to define the work required for projects that the City does not develop formal or abbreviated designs requiring a seal by a registered engineer. Incidental design does not include preparation of designs requiring an architect or engineer seal.

16.3.3 JOC Contractor represents, covenants, and agrees, and contractually assumes the obligation to furnish, all of the required Design Services through properly licensed and experienced Design Professionals in complete accordance with all of the duties imposed on a Design Professional under the Contract Documents, Laws, Regulations, or Legal Requirements, and the common law.

16.3.4 All Design Documents (and all other Project-related documents, models, computer drawings and other electronic expression, photographs and other expressions CADD, and BIM files and images included) that JOC Contractor and/or JOC Contractor's Design Professional(s) prepare in connection with a Job Order and the copyrights therein (collectively, the "Instruments of Service") will be the property of City. JOC Contractor covenants and agrees to execute any additional document reasonably requested by City to confirm such assignment without any additional compensation.

16.4 **CONSTRUCTION SERVICES**

16.4.1 The following subsections of this Section 16.4 set forth requirements beyond those set forth in Section 4 above which apply to Construction Services performed under a Job Order.

16.4.2 JOC Contractor must perform the Work using only those firms, team members and individuals designated by JOC Contractor consistent with each Job Order or otherwise approved by City pursuant to the General Conditions. No other entities or individuals may be used without the prior written approval of the Project Manager.

16.4.3 Construction Phasing

16.4.3.1 City use of the facilities is anticipated while the Work is being performed. The Work must be planned and accomplished so that there will be a minimum of interference and inconvenience to occupants in the building and agencies in the vicinity and to other craftsmen who may have to do work in the affected facilities. Any blockage of building exits or driveways must be coordinated in advance.

16.4.3.2 If applicable, furniture, portable office equipment and wall appurtenances not rigidly fastened to the walls must be moved by JOC Contractor, protected from damage and replaced to the original position upon completion of the work. If the work required by the Job Order will not allow furniture and portable office equipment to be replaced to its original position, new locations will be designated by City. Incidental costs associated with moving one-piece furnishings up to approximately 150 pounds to perform such tasks as painting, carpet or tile replacement, etc., are considered a general cost of building renovation and must be included in the JOC Contractor's Coefficient. Costs for large scale

or wholesale removal and replacement of large quantities of desks or modular workstations, copiers, multiple full file cabinets, etc. to another location or storage outside the work space, or disassembly and reassembly of modular furniture is not considered part of the JOC Contractor's Coefficient and will be priced separately.

16.4.3.3 The work must, so far as practicable, be done in definite sections or divisions and confined to limited areas which must be completed before work in other sections or divisions are begun.

16.4.4 Work Site Conflicts. In the event of a conflict between JOC Contractor and others in an occupied facility or where other Contractors are performing work on the same facility under other Contracts, City will decide to dispute and that decision will be final.

16.4.5 Ownership of Work Product. Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or matter, in whatever form created (e.g., electronic or printed) and in all media now known or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C. §101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, JOC Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

16.5 **OPTIONAL LIQUIDATED DAMAGES**

16.5.1 Specific Job Orders. City will have the right to assess liquidated damages in relation to any specific JOC Project Agreement as set forth below.

16.5.2 Substantial Completion Liquidated Damages. JOC Contractor acknowledges and agrees that if JOC Contractor fails to obtain Substantial Completion of the Work within the Contract Time, City will sustain extensive damages and serious loss as a result of such failure. The exact amount of such damages will be extremely difficult to ascertain. Therefore, City and JOC Contractor agree that if JOC Contractor fails to achieve Substantial Completion of the Work within the Contract Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9.

16.5.3 Final Acceptance Liquidated Damages. For the same reasons set forth in Section 16.5.2 above, City and JOC Contractor further agree that if JOC Contractor fails to achieve Final Acceptance of the Work within the Contract Time, City will be entitled to retain or recover from JOC Contractor, as liquidated damages and not as a penalty, the sum per calendar day as indicated in MAG § 108.9 commencing from the actual date of Substantial Completion or Final Acceptance as required under any specific JOC Project Agreement.

16.5.4 MAG Liquidated Damages. Liquidated damages provisions in MAG § 108.9 may apply to any specific JOC Project Agreement.

16.5.5 City may deduct liquidated damages assessed pursuant to this Section 16.5 from any unpaid amounts then or thereafter due JOC Contractor under the Contract or any specific JOC Project Agreement between JOC Contractor and City. Any liquidated damages not so deducted from any unpaid amounts due JOC Contractor must be payable to City at the

demand of City, together with interest from the date of the demand at the highest lawful rate of interest payable to JOC Contractor.

16.6 **PERFORMANCE MEASUREMENT**

16.6.1 Performance Assessment. After the Final Acceptance of Work under each Job Order, City will complete a written evaluation of the performance of JOC Contractor on the Job Order.

16.6.2 Consideration in Assignment of Work. JOC Contractor's record of cost, schedule and quality performance and comparative assessments will be significant considerations in City's determination whether to award future Job Orders. JOC Contractor agrees that any determination by City not to not award future Job Orders or Option periods based on performance will be at the sole discretion of City.

SECTION 17 - PROVISIONS APPLICABLE SOLELY TO PRE-CONSTRUCTION SERVICES FOR CONSTRUCTION MANAGER AT RISK

17.1 **ADDITIONAL DEFINITIONS**

The definitions set forth in Section 2 and 15.1 above will apply to all Pre-Construction Services Contracts.

17.2 **GENERAL**

17.2.1 CM@Risk must perform the Services required by, and in accordance with the Contract Documents and as outlined in Exhibit A of the Contract to the satisfaction of the Project Manager, exercising the degree of care, skill, diligence and judgment a professional construction manager experienced in the performance of such services for construction and/or facilities of similar scope, function, size, quality, complexity and detail to the Project in urban areas throughout the United States, would exercise at such time, under similar conditions. CM@Risk must, at all times, perform the required services consistent with sound and generally accepted engineering principles and construction management and construction contracting practices.

17.2.2 As a participating member of the Project Team, CM@Risk must provide to City and Design Professional a written evaluation of City's Project Program and budget, each in terms of the other, with recommendations as to the appropriateness of each. CM@Risk must prepare a Baseline Cost Model that validates City's budget. The Baseline Cost Model must include all assumptions and basis of estimates in enough detail so that the Project Team can compare future detail estimates to the Baseline Cost model for variances. City and Design Professional will provide all the reasonably required data that is available in order to reach agreement between the team members that the Baseline Cost Model is an accurate projection of the costs of the Project.

17.2.3 CM@Risk must attend Project Team meetings, which may include, but are not limited to, bi- weekly Project management meetings, Project workshops, special Project meetings, construction document rolling reviews, public meetings and partnering sessions. CM@Risk attendance at design or other meetings in which CM@Risk is provided the opportunity but does not actively participate and/or is not properly prepared is not acceptable. Repeated instances of non-participation and/or lack of preparedness will be grounds for termination of CM@Risk Contract for default.

17.2.4 CM@Risk must provide Pre-Construction Services, described herein, in a timely manner

and consistent with the intent of the most current Drawings and Specifications. CM@Risk must promptly notify City in writing whenever CM@Risk determines any Drawings or Specifications are inappropriate for the Project and/or cause changes in the scope of Work that deviates more than the allowed contingencies within the Baseline Cost Model or requires an adjustment in the Baseline Cost Model, Detailed Cost Estimate, Detailed Project Schedule, GMP Proposals and/or in the Contract Time for the Work, to the extent such as established.

17.2.5 CM@Risk when requested by City, must attend, make presentations and participate as may be appropriate in public agency and or community meetings, relevant to the Project. CM@Risk must provide drawings, schedule diagrams, budget charges and other materials describing the Project when their use is required or appropriate in any such public agency meetings.

17.2.6 Ownership of Work Product. All Work Product prepared or otherwise created in connection with the performance of this Contract, including the Work, are to be and remain the property of City. For purposes of this provision, "Work Product" will include all designs, drawings, plans, specifications, ideas, renderings and other information or material, in whatever form created (e.g., electronic or printed) and in all media now know or hereinafter created. All Work Product will be considered Work Made for Hire as defined in the United States Copyright Act 17 U.S.C.
§101 (Copyright Act). If for any reason any such Work is found not to be a work for hire, Contractor hereby transfers and assigns ownership of the copyright in such Work to City. The rights in this Section are exclusive to City in perpetuity.

17.2.7 CM@Risk represents to City in completing Pre-Construction Services and providing the reports and analysis required thereunder, that Work can be properly and timely constructed within the GMP Proposal, if accepted. CM@Risk does not assume any design responsibilities unless specifically called for in the scope of work, but CM@Risk will be responsible for their errors, omissions or inconsistencies included in the Work.

17.3 **DETAILED PROJECT SCHEDULE**

17.3.1 The fundamental purpose of the Detailed Project Schedule is to identify, coordinate and record the tasks and activities to be performed by all of the Project Team members and then for the Project Team to utilize that Deliverable as a basis for managing and monitoring all member's compliance with the schedule requirements of the Project. Each Project Team member is responsible for its compliance with the Detailed Project Schedule requirements. CM@Risk must, however, develop and maintain the Detailed Project Schedule on behalf of and to be used by the Project Team based on input from the other Project Team members. The Baseline Project Schedule must be developed as part of the Baseline Cost Model. The Detailed Project Schedule must use the Critical Path method ("CPM") technique, unless required otherwise, in writing by City. CM@Risk must use scheduling software acceptable to City to develop the Detailed Project Schedule. The Detailed Project Schedule must be presented in graphical and tabular reports as agreed upon by the Project Team. If Project phasing as described below is required, the Detailed Project Schedule must indicate milestone dates for the phases once determined. As part of construction phase, City may require CM@Risk to prepare a "resource loaded" schedule for all work, including work performed by Subcontractors, detailing each of the project tasks and the required/anticipated number of personnel per day for each task. CM@Risk must also indicate on the schedule its ability to meet said

required/anticipated personnel requirements.

17.3.2 CM@Risk must include and integrate in the Detailed Project Schedule the services and activities required of City, Design Professional and CM@Risk including all construction phase activities based on the input received from City and the Design Professional. The Detailed Project Schedule must define activities as determined by City to the extent required to show: (a) the coordination between preliminary design and various pre-construction documents, (b) any separate long-lead procurements, (c) any permitting issues, (d) any land, right-of-way, or easement acquisition, (e) bid packaging strategy and awards to Subcontractors and Suppliers, (f) major stages of construction, (g) start-up and commissioning, and (h) occupancy of the completed Work by City. The Detailed Project Schedule must include by example and not limitation, proposed activity sequences and durations for design, procurement, construction and testing activities, milestone dates for actions and decisions by the Project Team, preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement (if any), milestone dates for various construction phases, Total Float for all activities to the extent authorized by City, relationships between the activities, City's occupancy requirements showing portions of the Project having occupancy priority, and proposed dates for Final Acceptance.

17.3.3 A Baseline Project Schedule must be initiated with the project Baseline Cost Model and agreed to by the project team at the same time. CM@Risk must update and maintain a detailed Project Schedule throughout pre-construction such that it will not require major changes at the start of the construction phase to incorporate CM@Risk's plan for the performance of the construction phase Work. CM@Risk must provide updates and/or revisions to the Detailed Project Schedule for use by the Project Team, whenever required, but no less often than at the Project Team meetings. CM@Risk must include with such submittals a narrative describing its analysis of the progress achieved to-date vs. the Baseline Project Schedule, including any concerns regarding delays or potential delays, and any recommendations regarding mitigating actions.

17.3.4 If phased construction is deemed appropriate at the time of developing the Baseline Cost Model or during the development of the Detailed Project Schedule, and City approves, CM@Risk must review the design and make recommendations regarding the phased issuance of Construction Documents to facilitate phased construction of the Work, with the objective of reducing the Project Schedule and/or Cost of the Work. CM@Risk must take into consideration such factors as natural and practical lines of work severability, sequencing effectiveness, access and availability constraints, total time for completion, construction market conditions, labor and materials availability, and any other factors pertinent to saving time and cost.

17.3.5 Long Lead Time Items. As part of developing the Detailed Project Schedule, CM@Risk must identify all long lead time materials, fabrications, equipment, or other items which may impact the Project Schedule and may require early action on the part of the Project Team. Dates for selecting and ordering long lead time items will be included and highlighted in the Detailed Project Schedule

17.3.6 Equipment Plan. Contractor must develop an Equipment Plan that addresses all rental and owned equipment, regardless of whether such equipment will be provided by CM@Risk or subcontractor(s), that will be necessary to construct the Project and the cost of which will be included as a Cost of the Work in the GMP Proposal. The Equipment Plan

will seek to minimize the cost of the equipment to City and maximize the efficient and coordinated use of the equipment for completion of the Project. The Equipment Plan will not only include the costs and allowable lease rates for the equipment, but will also include an equipment schedule that will be incorporated into the Detailed Project Schedule and the Schedule of Values submitted with the GMP Proposal.

17.4 **DESIGN DOCUMENT REVIEWS**

17.4.1 CM@Risk must evaluate periodically the availability of labor, materials/equipment, cost-sensitive aspects of the design; and other factors that may create an unacceptable variance to the Baseline Cost Model and/or Baseline Project Schedule.

17.4.2 CM@Risk must recommend, in conjunction with the Project Team, those additional surface and subsurface investigations that, in its professional opinion, are required to provide the necessary information for CM@Risk to construct the Project. These additional investigations, if agreed to be necessary by the Project Manager and the Design Professional, will be acquired by City and copies of the reports will be provided to CM@Risk.

17.4.3 CM@Risk must meet with the Project Team as required to review designs during their development. CM@Risk must familiarize itself with the evolving documents through pre- construction. CM@Risk must proactively advise the Project Team and make recommendations on factors related to construction costs, and concerns pertaining to the feasibility and practicality of any proposed means and methods, selected materials, equipment and building systems, and, labor and material availability. CM@Risk must furthermore advise the Project Team on proposed site improvements, excavation and foundation considerations, as well as, concerns that exist with respect to coordination of the Drawings and Specifications. CM@Risk must use established value analysis principles in recommending cost effective alternatives.

17.4.4 CM@Risk must routinely conduct constructability and bid-ability reviews of the Drawings and Specifications as necessary to satisfy the needs of the Project Team. The reviews must attempt to identify all discrepancies and inconsistencies in the Construction Documents especially those related to clarity, consistency, completeness and coordination of Work of Subcontractors and Suppliers.

17.4.4.1 CM@Risk must evaluate whether: (a) the Drawings and Specifications are configured to enable efficient construction; (b) design elements are standardized; (c) construction efficiency is properly considered in the Drawings and Specifications; (d) module/preassembly design is prepared to facilitate fabrication, transport and installation; (e) sequences of Work required by or inferable from the Drawings and Specifications are practicable; (f) the design has taken into consideration efficiency issues concerning access and entrance to the site, laydown and storage of materials, staging of site facilities, construction parking, and other similar pertinent issues; and (g) the design maintains continued operation of the existing City systems and maintains traffic on adjacent roadways. CM@Risk must also review the Drawings and Specifications to ensure that what is depicted therein can be constructed as designed and must promptly inform the Project Team of any issues.

17.4.4.2 CM@Risk must check cross-reference and complementary Drawings and sections within the Specifications and in general evaluate whether: (a) the Drawings and Specifications are sufficiently clear and detailed to minimize ambiguity and to reduce scope interpretation discrepancies; (b) named materials and equipment are commercially available and are

performing well, or otherwise, in similar installations; (c) Specifications include alternatives in the event a requirement cannot be met in the field; and (d) in its professional opinion, the Project is likely to be subject to Differing Site Conditions.

17.4.4.3 The results of the reviews must be provided to Project Team in formal, written reports clearly identifying all reviewed documents and the discovered discrepancies and inconsistencies in the Drawings and Specifications with notations and recommendations made on the Drawings, Specifications and other documents. CM@Risk must meet with Project Team to discuss any findings and review reports.

17.4.4.4 CM@Risk's reviews must be from a Contractor's perspective, and though it will serve to eliminate/reduce the number of RFIs) and changes during the construction phase, responsibility for the Drawings and Specifications will remain with the Design Professional and not CM@Risk.

17.4.5 It is CM@Risk's responsibility to assist the Design Professional in ascertaining that, in CM@Risk's professional opinion, the Construction Documents are in accordance with applicable Laws, Regulations, or Legal Requirements, building codes, sound engineering principle's rules and regulations. If CM@Risk recognizes that portions of the Construction Documents are at variance with applicable laws, statutes, ordinances, building codes, sound engineering principle's rules and regulations, it must promptly notify the Project Team in writing, describing the apparent variance of deficiency. However, the Design Professional is ultimately responsible for the compliance of the Drawings and Specifications with those laws, statutes, ordinances, building codes, rules and regulations.

17.4.6 The Project Team will routinely identify and evaluate using value analysis principles and alternate systems, approaches, design changes that have the potential to reduce Project costs while still delivering a high quality and fully functional Project consistent with the Project Program. If the Project Team agrees, CM@Risk in cooperation with the Design Professional, will perform a cost/benefit analysis of the alternatives and submit such in writing to the Project Team. City, through the Project Manager, will direct which alternatives will be incorporated into the Project. The Design Professional will have full design responsibility for the review and incorporation of CM@Risk suggested alternatives into the Drawings and Specifications. CM@Risk must analyze the costs and schedule impacts of the alternatives against the Baseline Cost Model and Schedule and provide a recommendation for the Project Team's consideration and City's approval prior to the establishment of the GMP.

17.5 BASELINE COSTS MODEL, DETAILED COST ESTIMATES, AND SCHEDULE OF VALUES

17.5.1 At the conclusion of the Master Planning and Programming, if required, CM@Risk will review all available information regarding the design and scope of the Project using CM@Risk's experience in performing similar work, knowledge of similar projects and current and projected construction costs and, based upon that review, must develop a Baseline Cost Model for review by the Project Team and approval by City. Once approved by City, the Baseline Cost Model will be continually referenced as detailed estimates are created as the design progresses throughout Pre-Construction until the final GMP for the entire Project is established. A final GMP for the entire Project must be established and approved by City prior to the start of construction. It is the responsibility of CM@Risk to ensure City has sufficient information to evaluate and approve a final GMP prior to the time necessary to start construction so construction can be completed within the

Contract Time. The Project Detailed Cost Estimate will be the best representation from CM@Risk of what the complete functional Project's construction costs will be as indicated by the most current available documents and will be constantly checked against the Baseline Cost Model. CM@Risk must communicate to the Project Team and assumptions made in preparing the Baseline Cost Model. The Baseline Cost Model must support CM@Risk's Detailed Cost Estimates and may be broken down initially as dictated by the available information, as required by City.

17.5.2 After receipt of the Design Professional's most current documents from certain specified pre- construction milestones, CM@Risk must provide a draft Detailed Cost Estimate including a detailed written report detailing any variances to the Baseline Cost Model and Baseline Project Schedule. The Design Professional and CM@Risk will reconcile any disagreements on the estimate to arrive at an agreed upon Detailed Cost Estimate for the construction costs based on the scope of the Project through that specified pre-construction milestone. Pre-Construction milestones applicable to this paragraph are: Master Planning and Programming, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Drawings, If no consensus is reached, City will make the final determination. If the Project Team requires additional updates of the Detailed Cost Estimate beyond that specified in this paragraph, CM@Risk must provide the requested information in a timely manner.

17.5.3 If at any point the Detailed Cost Estimate submitted to City exceeds the previously accepted Baseline Cost Model or previously approved Detailed Cost Estimate agreed to as set forth in Section 17.5.2 above, CM@Risk must make appropriate recommendations to project Team on means/methods, materials, and or other design elements that it believes will reduce the estimated construction costs, such that it is equal to or less than the established Project Team's Baseline Cost Model.

17.5.4 Unless other levels of completion are agreed to in writing in the Construction Documents, at 50% Construction Drawings and included with the associated report, CM@Risk must also submit to the Project Team for review and approval a Schedule of Values that complies with the following requirements. The Schedule of Values must be based on City standard bid schedule and highlight significant variances from any previously submitted Schedule of Values. The Schedule of Values must be directly related to the breakdowns reflected in the Detailed Project Schedule and CM@Risk's Detailed Cost Estimate. In addition, the Schedule of Values must: (a) detail unit prices and quantity take-offs, (b) detail all other contingencies and unit price Work shown and specified in the detailed design documents.

17.5.5 CM@Risk is to track, estimate/price and address the Project Team's overall project cost issues that arise outside of the Baseline Cost Model and the latest approved Detailed Cost Estimate such as: City generated changes, Project Team proposed changes, alternate system analysis, constructability items and value engineering analysis. The system used to implement this process will be referred to as the Design Evolution Log. This is to be addressed between the Baseline Cost Model and the Master Planning and Programming Detailed Cost Estimate, and then (unless other levels of completion are agreed to in writing in the Construction Documents) between the Detailed Cost Estimates for each of the pre-construction milestones thereafter, Schematic Design, 50% Design Development, 100% Design Development, and 50% Construction Documents, and the bid packages for all Phases.

17.5.6 Upon request by City, CM@Risk must submit to City a cash flow projection for the Project

based on the current updated/revised Detailed Project Schedule and the anticipated level of payments for CM@Risk during the design and construction phases. In addition, if requested by City and based on information provided by City, CM@Risk must prepare a cash flow projection for the entire Project based on historical records for similar types of projects to assist City in the financing process.

17.5.7 Construction Water. CM@Risk must estimate the quantity of water to be used and include the cost thereof in each Detailed Cost Estimate and GMP Proposal provided by City.

17.6 **SUBCONTRACTOR AND MAJOR SUPPLIER SELECTIONS**

17.6.1 There are two ways to select Subcontractors and major Suppliers prior to submission of a GMP Proposal: (1) qualifications-based selection; or (2) a combination of qualifications and price. Except as noted below, the selection of Subcontractors/Suppliers is the sole responsibility of CM@Risk. In any case, CM@Risk is solely responsible for the performance of the selected Subcontractors/Suppliers, and for compliance with the requirements of Title 34 of the Arizona Revised Statutes in the selection of a Subcontractors/Suppliers, to the extent applicable. CM@Risk must comply with its Subcontractor Selection Plan submitted with its Statement of Qualifications.

17.6.2 City may approve the selection of a Subcontractor(s) or Suppliers(s) based only on their qualifications when CM@Risk can demonstrate it is in the best interest of the Project. All Work that is performed, after such a qualifications-based selection, for a price that is negotiated by CM@Risk will be billed in accordance with the GMP for actual costs and may be subject to audit by City.

17.6.2.1 Qualifications based selection of a Subcontractor(s)/Supplier(s) should only occur prior to the submittal of the GMP Proposal.

17.6.2.2 If a Subcontractor/Supplier selection plan was submitted and agreed to by City, CM@Risk must apply the plan in the evaluation of the qualifications of a Subcontractor(s) or Supplier(s) and provide City with its review and recommendations.

17.6.2.3 CM@Risk must receive written City approval for each selected Subcontractor(s) and Supplier(s).

17.6.2.4 CM@Risk must negotiate costs for services/supplies from each Subcontractor/Supplier selected under this method.

17.6.3 All Work must be competitively bid unless a Subcontractor or Supplier was selected pursuant to Section 17.6.2 above.

17.6.3.1 CM@Risk must develop Subcontractor and Supplier interest, submit the names of a minimum of three qualified Subcontractors or Suppliers for each trade in the Project for approval by City and solicit bids for the various Work categories. If there are not three qualified Subcontractors/Suppliers available for a specific trade or there are extenuating circumstances warranting such, CM@Risk may request approval by City to submit less than three names. Without prior written notice to City, no change in the recommended Subcontractors/Supplies will be allowed.

17.6.3.2 If City objects to any nominated Subcontractor/Supplier or to any self-performed Work for good reason, CM@Risk must nominate a substitute Subcontractor/Supplier that is acceptable to City.

17.6.3.3 CM@Risk must distribute Drawings and Specifications, and when appropriate, conduct a Pre- Bid Conference with prospective Subcontractors and Suppliers.

17.6.3.4 If CM@Risk desires to self-perform certain portions of the Work, it must request to be one of the approved Subcontractor bidders for those specific bid packages. CM@Risk's bid will be evaluated in accordance with the process identified below. If events warrant and City concurs that it is necessary in order to ensure compliance with the Project Schedule and/or the most recent Detailed Cost Estimate, CM@Risk may be authorized to self-perform Work without bidding or rebidding the Work. When CM@Risk self-performs work without bidding, only the actual costs associated with performing the Work in accordance with the approved GMP will be billed and may be subject to audit by City.

17.6.3.5 CM@Risk must receive, open, record and evaluate the bids; provided, however, that if CM@Risk or one of its affiliates is bidding to self-perform the Work that is the subject of the bid, then the bids must be received, opened, recorded and evaluated by Project Manager instead of CM@Risk. Bids for each category of Work must be opened and recorded at a pre-determined time. The apparent low bidders must be interviewed to determine the responsiveness of their proposals. In evaluating the responsiveness of bid proposals CM@Risk, in addition to bid price, may consider the following factors: past performance on similar projects, qualifications and experience of personnel assigned, quality management plan, approach or understanding of the Work to be performed, and performance schedule to complete the Work. The final evaluation of Subcontractor/Supplier bids must be done with Project Manager in attendance to observe and witness the process. CM@Risk must resolve any Subcontractor/Supplier bid withdrawal, protest or disqualification in connection with the award at no increase in the Cost of Work.

17.6.4 CM@Risk will be required to prepare two different reports on the subcontracting process.

17.6.4.1 Within fifteen days after each major Subcontractor/Supplier bid opening process; CM@Risk must prepare a report for City's review and approval identifying the recommended Subcontractors/Supplier for each category of Work. The report must detail: (a) the name of the recommended Subcontractor/Supplier and the amount of the Subcontractor/Supplier bid for each sub-agreement; (b) the sum of all recommended Subcontractor/Supplier bids received; (c) and trade work and its cost that CM@Risk intends to self-perform, if any.

17.6.4.2 Upon completion of the Subcontractor/Supplier bidding process, CM@Risk must submit a summary report to City of the entire Subcontractor/Supplier selection process. The report must indicate, by bid process, all Subcontractors/Suppliers contacted to determine interest, the Subcontractors/Suppliers solicited, the bids received and costs negotiated, and the recommended Subcontractors/Suppliers for each category of Work.

17.6.5 The approved Subcontractors/Suppliers will provide a Schedule of Values with their bid proposals, which will be used to create the overall Project Schedule of Values.

17.6.6 If after receipt of sub-bids or after award to Subcontractors and Suppliers, City objects to any nominated Subcontractor/Supplier or to any self-performed Work without any reasonable basis, CM@Risk must nominate a substitute Subcontractor or Supplier, preferably if such option is still available, from those who submitted Subcontractor bids for the Work affected. Once such substitute Subcontractors and Suppliers are consented to by City, CM@Risk's proposed GMP for the Work or portion thereof must be correspondingly adjusted to reflect any higher or lower costs form any such substitution.

17.7 **GMP PROPOSAL**

17.7.1 When a GMP Proposal is submitted for a phase of the Work, the GMP will have a Detailed Cost Estimate of the Costs of the Work (as set forth in Section 15.2) in each phase of the Work that is being proposed plus the current estimate for all other Work. City will not approve the GMP for the phase of work without a total estimate for the complete Project. City may request a GMP Proposal for all or any portion of the Project and at any time during pre-construction. Any GMP Proposals submitted by CM@Risk must be based on and consistent with Baseline Cost Model and the current update/revised Detailed Cost Estimate at the time of the request and include any clarifications or assumptions upon which the GMP Proposal(s) are based.

17.7.2 A GMP Proposal for the entire Project will be the sum of the Cost of the Work, CM@Risk Fee, and General Conditions Cost. CM@Risk guarantees to complete the Project at or less than the final GMP Proposal amount plus approved Change Orders. CM@Risk will be responsible for any costs for expenses that would cause the Cost of the Work actually incurred, including the Construction Fee and General Conditions Costs, to exceed the GMP.

17.7.3 CM@Risk must prepare its GMP Proposal in accordance with City's request for GMP Proposal requirements based on the most current completed Drawings and Specifications at that time, which unless otherwise directed by City in writing, will be at 100% Construction Drawings. CM@Risk must mark the face of each document of each set upon which its GMP Proposal is based. These documents must be identified as the GMP Plans and Specifications. CM@Risk must send one set of those documents to the Project Manager, keep one set and return the third set to the Design Professional.

17.7.4 An updated/revised Detailed Project Schedule, Equipment Plan, and Schedule of Values must be included in any GMP Proposal(s), all of which must reflect the GMP Plans and Specifications the Detailed Project Schedule must be shown in relationship to the Project Schedule and identify any variance to the Baseline Project Schedule. Any such Detailed Project Schedule updates/revisions must continue to comply with the requirements of Section 17.3.1 through 17.3.5.

17.7.5 GMP Proposals(s) Review and Approval

17.7.5.1 CM@Risk must meet with the Project Team to review the GMP Proposal(s) and the written statement of its basis. In the event the Project Team discovers inconsistencies or inaccuracies in the information presented, CM@Risk must make adjustments as necessary to the GMP Proposal.

17.7.5.2 If during the review and negotiation of GMP Proposals design changes are required, City may authorize and cause the Design Professional to revise the GMP Plans and Specifications to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP Proposal. Such revised GMP Plans and Specification will be furnished to CM@Risk. CM@Risk must promptly notify the Project Team in writing if any such revised GMP Plans and Specifications are inconsistent with the agreed upon assumptions and clarifications.

17.7.6 All portions of or items comprising the GMP Proposal are subject to audit by City, as deemed appropriate by City, including, without limitation, any based upon unit prices or Work to be self- performed by CM@Risk, or its affiliates.

17.8 **PAYMENT PROCEDURE FOR PRE-CONSTRUCTION SERVICES**

17.8.1 Requests for monthly payments by CM@Risk for Pre-Construction Services must be submitted monthly and must be accompanied by a progress report, detailed invoices and receipts, if applicable. Any requests for payment must include, as a minimum, a narrative description of the tasks accomplished during the billing period, a listing of any Deliverables submitted, and copies of any Subconsultants' requests for payment, plus similar narrative and listings of Deliverables associated with their Work. Payment for services negotiated as a lump sum will be made in accordance with the percentage of work completed during the preceding month.

17.8.2 In no event will City pay more than seventy-five (75%) of the Contract Price until acceptance of ALL Pre-Construction Services and award of the final approved Construction Services Contract for the entire Project by City Council. If CM@Risk does not prepare a GMP Proposal that is acceptable to City, or the GMP Proposal exceeds the City's Construction Budget, then CM@Risk understands and acknowledges that it will forfeit any right to receive the 25% of the Contract Price being retained by City.

17.8.3 CM@Risk agrees that no charges or claims for costs or damages of any type will be made by it for any delays or hindrances beyond the reasonable control of City during the progress of any portion of Pre-Construction Services specified in this Contract. Such delays or hindrances, if any, will be solely compensated for by an extension of time for such reasonable period and may be mutually agreed between the parties. It is understood and agreed, however, that permitting CM@Risk to proceed to complete any such Services, in whole or in part after the date to which the time of completion may have been extended, will in no way act as a waiver on the part of City of any of their respective legal rights herein.

17.8.4 No compensation to CM@Risk will be allowed contrary to Article I, Chapter I, Title 34 of the Arizona Revised Statutes.

17.8.5 If any service(s) executed by CM@Risk is abandoned or suspended in whole or in part, for a period of more than 180 days through no fault of CM@Risk, CM@Risk is to be paid for the services performed prior to the abandonment or suspension.

17.9 **SURVIVAL OF THE DESIGN SERVICES CONTRACT, DUTIES, OBLIGATIONS AND WARRANTIES**

If the GMP Proposal is accepted by City and a Construction Contract is entered into between City and CM@Risk, the duties, obligations and warranties of CM@Risk under the Pre- Construction Services Contract survive and are incorporated into the resulting Construction Contract.

SECTION 15 – APPENDICES

The following Appendices attached hereto are referenced in the General Conditions and are incorporated herein.

Appendix 1 – Policy Statement for Calculating Delays and Damages
Appendix 2 – Cost Reduction Incentive Proposals for Design Bid Build Contracts
Appendix 3 – Contractor's Affidavit Regarding Settlement of Claims
Appendix 4 – Forms of Performance Bond
Appendix 5 – Forms of Payment Bond
Appendix 6 – Dispute Resolution
Appendix 7 – Certificate of Completion
Appendix 8 – Construction Sign Detail
Appendix 9 – Cost of the Work (Applicable solely to Construction Manager at Risk and Job Order Contracting)
Appendix 10 Landscape Establishment Period

CALCULATING DELAYS AND DAMAGES

The purpose of this policy statement is to establish guidelines and procedures for negotiation between the Contractor and City of Chandler relating to compensation for delays pursuant to Arizona Revised Statutes (A.R.S.) 34-221(F). This policy statement contains notice requirements in addition to those set forth in the Contractor Documents, and will be the Contract Provision contemplated by that statute.

NOTE: As used herein, the term "Engineer" will refer to the City of Chandler City Engineer or his/her designated representative. Nothing in this Policy Statement will be construed to void any provision in the Contract which requires timely notice of delays or provides for arbitration or any other procedure for settlement or provides for liquidated damages.

I. TYPES OF DELAYS:

For the purposes of this document, there are essentially four types of delays encountered by City of Chandler Construction Contractors; excusable/compensable, excusable/non-compensable, non- excusable, and concurrent. Only delays that extend Contract Completion Time set forth in the Contract Document will be considered for issues relating to Contract extensions or additional compensation. All other delays are considered to be activity delays and do not entitle the Contractor to either time extensions or additional compensation. Contract Completion Time will be defined as the date set forth in Maricopa Association of Governments (MAG) Uniform Standard Specification Section 101 and as may be modified by the Contract Documents.

A. Excusable/Compensable:

These are delays caused solely by the City's actions or inactions, are unreasonable under the circumstances, and which were not within the contemplation of the parties to the Contract at or prior to the time of execution of the Contract. Since the Contractor presumably has no control over the events causing the delay, he may be entitled to both contract time extensions and additional compensation for delay damages. Further, he/she may be entitled to additional compensation from the impact of that delay on other work. Examples of excusable/compensable (E/C) delays include: failure to properly locate an underground City-owned utility within 2 feet of the actual location; failure to relocate City-owned utilities far enough in advance of construction in an area where the Contractor is scheduled to work that it delays start or completion of the Contractor's regularly scheduled work; failure to provide City-furnished equipment or materials in a timely manner if required by the Contract; failure to acquire necessary Right-of-Way or Public Utility Easements prior to the Contractor beginning Work in the area; failure to timely return Shop Drawings or other Contract Submittals in accordance with the Contract; unreasonable delay by the City in making decisions which affect critical activities; surveying errors when the City is contractually responsible for providing Project Surveying. This list is not meant to be all inclusive, but is intended merely as examples of the type of City action or inaction which can result in a Contractor's claim for additional time and compensation.

B. Excusable/Non-compensable:

These are delays over which neither the City nor the Contractor had control. Since both parties to the Contract have been potentially damaged by the delay, but neither have caused it, only Time Extensions are warranted. Examples of excusable, non-compensable (E/N) delays include: unusually severe weather; fire; acts of God; failure of non-City owned utilities (SRP, CenturyLink, Cable TV, Southern Pacific Railroad, and Southwest Gas, etc.) to properly or timely locate accurately; failure of non-City owned utilities to relocate in advance of construction; the voluntary or involuntary filing for Bankruptcy protection by a Supplier or Subcontractor which causes the Supplier/Subcontractor to fail to meet a contractual deadline provided the Contractor can provide documentation that he/she executed the required Purchase Orders/Subcontract Agreements and received delivery schedules which, if met, would have eliminated the delay; delays as a result of an incomplete shutdown of a City or non-City owned utility main (the City does not guarantee a complete shutdown). This list also is not necessarily all inclusive but merely indicative of type and class of E/N delays.

C. Non-excusable/Non-compensable:

These are delays caused by the actions or inactions of Contractor or an officer, employee, agent, Subcontractor, Supplier or any other party for whom the Contractor is responsible. Since the Contractor has assumed responsibility for the risks associated with the events that caused the delay, he/she are not entitled to either time extensions or monetary delay damages. All non-excusable delays are also non-compensable. Examples of non- excusable, non-compensable (N/N) delays include: failure to perform by the Contractor, its Subcontractors and/or Suppliers (except as noted in section I.B above); failure to provide adequate labor, materials, and/or equipment on the Project; failure to perform contractually-required coordination with utilities, agencies and other Contractors; failure to notify the Engineer, in writing, of delay impacts within two working days, as required by MAG 104.2.3, or the next work day, as required by MAG 109.8.2; failure to timely submit Shop Drawings; failure to pothole or otherwise visually locate utilities sufficiently ahead of the Work to allow the Engineer to direct corrective action when necessary; delays due to retesting of previously failed work, re-inspection, and/or restaking resulting from faulty workmanship, poor quality control, or lack of compliance with Contract Specifications. Again, this list is not necessarily all inclusive.

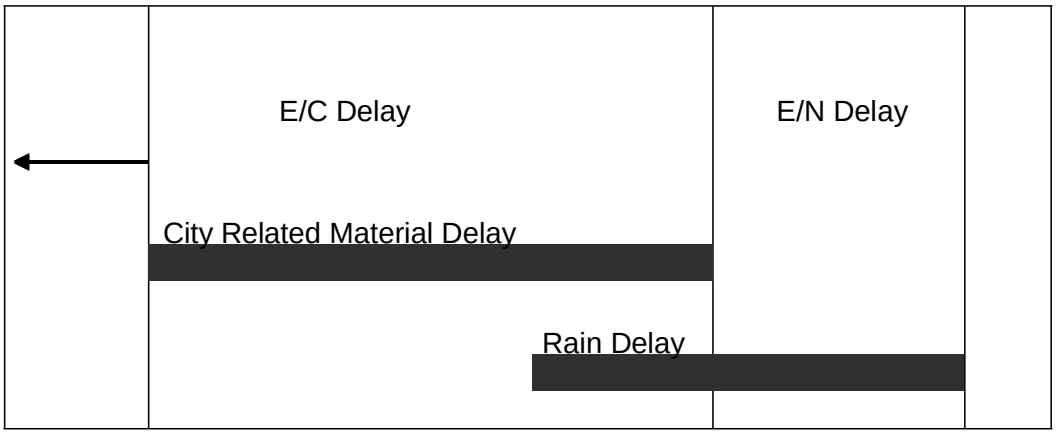
D. Concurrent:

When two or more delays occur simultaneously or overlap, each delay is analyzed separately to determine its impact on the overall project completion date based on when that delay started. Once again, only those delays which actually extend the contract completion time are considered as delays. The concurrent delay is considered an additional delay only to the extent it prolongs the delay to the Contract Completion Time beyond the date that the one it is concurrent with had already delayed that date. For example, if two delays are concurrent, and one is five days long and the second is seven days long, the second concurrent delay will

only extend the Contract Completion Time by two days. The same method of analysis is used when there are multiple concurrent delays. Only those extending the Project Completion Date are considered to be delays for the purposes of this policy. The portion of each concurrent delay that delays the completion of the work is classified in the same manner as described previously for individual delays and being either E/C, E/N or N/N.

An example of a concurrent delay is where the City delays furnishing material, but the Contractor could not have installed it anyway due to unusually severe weather. The effect of the first delaying activity will extend for the full duration and will be considered controlling on the Contractor's schedule. A subsequent, concurrent delay will thereafter only be considered to effect the project completion (if at all) once the first delaying activity has ceased to impact the project completion. In this case, if the unusually severe weather continued and delayed the work after the material was delivered, the first portion of the delay would be classified E/C (delay for material) and the second as E/N (delay due to unusually severe weather). Using the procedure set forth above, the entire concurrent portion would be considered E/C as shown in the chart which follows.

Example of a Concurrent Delay:



II. ANALYZING THE DELAY:

The Contractor must provide all documents required or requested by the Engineer to analyze the delay(s). It is important to understand that, prior to the delay analysis, delays and their impacts are alleged issues. The information the Contractor provides will be compared with the Inspector's Daily Log, Schedules and other available Project information and together they will support or refute that delays occurred and, if so, how they impact other work and the overall project completion. The Contractor's delay in providing these documents will be considered prima facie evidence that either the delay did not occur or it did not impact the Project Completion Date and any claim for time extension or damages will be denied.

The Engineer will accept delay analyses in CPM format, as these may demonstrate to his/her satisfaction whether or not Project Completion has been impacted by a specific event. If the Contractor chooses not to use CPM scheduling procedures, then the burden will be on the Contractor to prove to the Engineer's satisfaction that the Project Completion has been impacted. The procedures below assume that the Contractor is using CPM scheduling methods.

As a minimum the Contractor must provide the following materials to the Engineer:

A. As-Planned Schedule. The initial construction schedule, required by the Contract Documents, will be considered the baseline schedule. It is to the Contractor's advantage that the As-Planned (baseline) Schedule be as detailed as possible in order for delays, as they occur, to be incorporated into the schedule in representative locations. It is also to the Contractor's advantage to use a computer software program to generate the schedule since updated schedules are required monthly by the Contract Documents and since updated schedules are required to support delays and requests for additional compensation for delays. The As-Planned (baseline) Schedule must be presented in network format which clearly shows the interrelationships of the activities. The Contractor must also provide a printout of the activities showing early start, early finish, late start, late finish, duration and float. The activity list printout must also indicate predecessor and successor activities.

B. As-Built Schedules. The as planned (baseline) schedule must be updated with complete progress-to-date information (actualized) up to the date of the start of the alleged delay. Each updated schedule will serve as the as-built schedule for analyzing the alleged delay and provide a new baseline as-planned schedule for the next delay. This process must be repeated for each alleged delay as it occurs. In updating the baseline schedule, the alleged delay must be treated as an activity and inserted into the schedule as a predecessor to the impacted activity (ies). When an activity that has already started is impacted, it is preferable to divide this activity into two parts and show the impact affecting the second part. For schedules which incorporate a time line (or data date), the delay activity must be inserted at the time it actually occurred. Some software scheduling programs have a PAUSE-RESUME feature that can be used to facilitate the requirements. The updated schedule must also be accompanied by a listing of activities as with the baseline schedule. This activities list must contain the alleged delay as an activity showing the duration and the activities which are predecessors and successors to it. When computer generated schedules are used, the Contractor must provide, in electronic media format, the complete data files for the updated schedule that included the delay activity, preferably either in Suretrak or in Microsoft Project. Each electronic media must contain a label identifying the Project name, Contractor's name, program name and version number, data date and project finish date.

C. Other Documents: In order to determine the amount of the alleged delay and if it is compensable, the Contractor must provide all backup documentation relevant to the issue and as required by the Engineer. This documentation must include copies of such items as: purchase orders; delivery schedules; correspondence; memoranda of telephone calls; force account daily worksheets (initialed by the Inspector); payroll data; estimating (bid) worksheets; and any other materials which may be requested by the Engineer.

D. Procedure: Only after receipt of sufficient documentation will the Engineer analyze each alleged delay and determine if it is supported or refuted. If supported, the Engineer will determine if it is excusable or non-excusable, compensable or non-compensable. If the Engineer determines that the delay did not affect the Project Completion, the as-planned schedule, which has been updated to the date of the alleged delay, must be revised to indicate this. If the Engineer determines the delay

did occur but was N/N, then no time extension will be granted. It is imperative that an actualized schedule be submitted as soon as the occurrence of the alleged delay is known. In no event will the Contractor submit an actualized updated schedule later than 60 days after the occurrence of the alleged delay becomes known.

If the Engineer determines the delay did occur and was excusable but, due to a reason listed in section I.B. is non-compensable, he/she will determine the length of the E/N delay and prepare a Change Order to add that time to the Contract. The Engineer's decision will be final.

If the Engineer determines the delay was excusable and compensable, he/she will determine the length of the E/C delay and proceed to review the Contractor's damage calculations in accordance with Section III. The Engineer will check the Contractor's calculations, review the backup documentation provided, and prepare a Change Order to cover both the additional compensation and the time extension. The Engineer's decision on both the time extension and additional compensation for the delay will be final.

If the issue involves a concurrent delay, the Engineer will analyze available data to determine the portions which are E/C, E/N, and/or N/N as described above. The Engineer will proceed to determine the length of E/C delay and verify the Contractor's delay damage calculations, if any are provided. Upon completion of this review, the Engineer will prepare a Change Order for the Contractor's review and signature. The Engineer's decision regarding excusable delay and additional compensation for the delay is final.

The amount of time the Engineer will require to analyze the alleged delay(s) will depend upon the Engineer's workload, the complexity of the delay analysis, availability of supporting data, extent of cooperation by the Contractor, and other factors beyond the Engineer's control. It is entirely possible other delay(s) may occur while the Engineer is analyzing particular claim for delay(s). The Engineer's failure to respond to the Contractor in a set period of time will not be used as the basis for a further delay claim or as justification for extending and existing delay claim. The time required for delay analysis by the Engineer will not be counted against the time allotted for processing Final Payment as required by (MAG Section 109.7(B)) or the release of retention and Final Payment as prescribed by A.R.S. Arizona Revised Statutes §34-221.

III. CALCULATING MONETARY DELAY DAMAGES:

Additional compensation for delay, when authorized by the Engineer, will be calculated in accordance with MAG Section 109.5 ACTUAL COST WORK with the following exceptions:

A. No additional compensation or other monetary damages will be awarded or paid for any loss of anticipated profits by the Contractor, Subcontractors or Suppliers.

B. No additional compensation or other monetary damages will be awarded for home office overhead or non-project general conditions of the Contractor, Subcontractors or Suppliers.

C. Equipment:

1. Contractor-owned equipment rate calculations must be computed in accordance with Section 109.04(D)(3), Arizona Department of Transportation "Standard Specifications for Road and Bridge Construction," 2008 or latest edition and as modified herein. Year and regional adjustment factors must be based on the most recent publications of the Rental Rate Blue Book for Construction Equipment, published by the Equipment Guide-Book Company, San Jose, CA, same as provided by ADOT and in print as of the date of alleged delay. In no event will the compensation for Contractor-owned equipment exceed the purchase price, including tax, paid by the Contractor for the equipment. Compensation will not be allowed for small tools or equipment that show a daily equipment rental rate of less than $5.00 per day or for unlisted equipment that has a value of less than for hundred dollars ($400.00).
2. For leased and rented equipment or equipment not otherwise listed in the Blue Book, rental contracts, or other supporting data will be used to establish the hourly rate. No hourly operating expense will be allowed for delay on standby equipment. In no case will equipment be considered for rental which exceeds the hourly rate for the first eight hours and the daily rate divided by eight for all additional hours as compared with similar equipment listed in the Blue Book. The hourly standby rate must be computed as the lesser of:

    a. Dividing the monthly invoice or rental value by 176 hours per month when the equipment is utilized by the Contractor for more than three weeks;

    b. Dividing the monthly invoice or rental value by 40 hours per week when the equipment is utilized by the Contractor for more than three days.

    In no event will compensation be paid for delay at more than 8 hours per day or 40 hours per week.

3. Except for vehicles used by supervisory personnel, all equipment will be paid at the "standby" rate during the delay period.

4. Equipment brought solely to mitigate the delay (such as pumps, light plants, etc.) may be paid in accordance with ADOT section 109.04(D) (3).

5. The Blue Book regional adjustment will apply in determining rental rates.

D. Material:

Allowable material charges may include, in addition to material incorporated in the work material used to mitigate the delay such as barricades, plates, shoring, cold mix, etc. Except in emergencies the Contractor will not employ such material without the prior written approval of the Engineer.

E. Labor:

1. Except for Supervisory Personnel (Superintendent, Project Engineer, and Foremen), labor wages will not be paid after the first one-half day of

claimed delay or impact. It is expected the Contractor will reassign or layoff unneeded employees.

2. For Foreman wages to be included, that Foreman must have been actively employed on the project prior to the commencement of the delay and be directly responsible for the activity being delayed.

3. Labor burden must be actual amounts incurred but must not exceed the ADOT approved rate.

F. All costs (equipment, material, and labor) must be substantiated by the City of Chandler's Daily Work Reports.

IV. DOCUMENT REQUIRED FOR CLAIM ANALYSIS:

For purposes of reviewing the Contractor's request for additional compensation, it will be required that the Contractor submit the following listed information. Information requested must be prepared on forms which are substantially similar to the City of Chandler's Daily Work Report form, a copy of which is attached as an exhibit.

A. Labor:

For each employee, laborer, and foreman, for which compensation is requested: Name, classification, dates of work performed, daily hours worked, total hours worked, labor rates, labor burden rates, overtime or premium time charges. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Certified payroll reports for the period of work claimed.
2. Accounting of Fringe Benefits – certified by a CPA.
3. Contractor's and Subcontractor's daily field reports and daily diaries.

B. Materials:

For all materials for which compensation is requested, if any, total quantities of materials, prices, extensions and transportation costs must be provided on a daily basis. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Invoices for all materials incorporated.
2. Weigh tickets.
3. Purchase orders.
4. Delivery schedules.
5. Quotes or proposals from manufacturers or supplier.
6. Freight bills, Bills of Lading, or other documentation to show transportation costs.
7. Restocking charges-invoices from vendor.

C. Equipment:

For all equipment, the Contractor must provide the Engineer with the designation, dates and hours of usage, dates and hours of standby, if any, daily hours, total hours,

rental rates and extension for each unit of equipment and machinery. Rental rates will be as established in Section III. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Owned:
   a. Purchase contracts(s).
   b. Depreciation schedule(s).
   c. Invoices for fuel, lube, repairs and other operating costs.

2. Leased:
   a. Lease agreement with hourly rate, overtime rate, double shift rate, etc.
   b. Invoices or other documentation showing hours worked on a daily basis.

D. Subcontractors/Owner-Operators:

In the event the Contractor submits a claim which includes requests for compensation for Subcontractors of Owner-Operators, the same information requested of the Contractor must be provided by the Subcontractor/Owner-Operator. Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Bid/Estimate work sheets and/or spreadsheets.
2. Subcontract Agreements or Agreements with Owner-Operator.
3. All invoices and billing statements received from the Subcontractor/Owner-Operator which relates to the amount requested.

E. Miscellaneous:

Further, the Contractor must make available for inspection and copying to the Engineer the following listed documentation.

1. Evidence of payment for bonds and insurance premiums (MAG 109.5.6).
2. Taxes – unless the Contractor can show otherwise, taxes are reimbursable at 65% of the total cost (less bonds and insurance).

V. TIME LIMIT ON SUBMISSIONS OF CLAIM FOR DELAY OR IMPACT DAMAGES:

No claims for delay or impact damages will be considered or allowed more than 45 days after the event or occurrence which the Contractor claims gives rise to the delay or impact. In no event will a claim for delay or impact damages be considered after submission by the Contractor of the Final Payment Request.

COST REDUCTION INCENTIVE PROPOSALS FOR DESIGN BID BUILD CONTRACTS

The Contractor may submit to the Engineer proposals for modifying the Plans, Specifications, or other requirements of the Contract for the sole purpose of reducing the total cost of Project construction. The proposals must not impair in any manner the essential functions or characteristics of the project; including but not limited to service life, economy of operations, ease of maintenance, desired appearance, compatibility with existing or planned equipment, standardization of systems, or design and safety standards.

It must not be inferred from this Policy that the Engineer is required to consider any proposal submitted.

Submissions that propose changes in the basic design of a bridge, propose changes in pipe line size, materials, bedding conditions, pipe specifications; or that propose any change in pavement design will not be considered.

Proposals submitted pursuant to this Policy will be identified as Cost Reduction Incentive Proposals. They must be submitted in writing and, at a minimum, contain the following.

1. Complete the attached or similar cost reduction incentive proposal form.

2. A description of both the existing Contract Requirements for performing the work and the proposed changes.

3. All Engineering Drawings and computations necessary for the thorough and expeditious evaluation.

4. An itemization of the existing Contract Requirements that must be changed if the Proposal is adopted and a recommendation as to the manner in which the change should be made.

5. A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed changes, including the cost of developing and implementing the changes.

6. The Contract items affected by the proposed changes and any variations in quantities resulting from the changes.

7. An objective estimate of any effects the proposal will have on collateral cost to the City, costs of related items, and cost of maintenance and operation.

8. A statement as to the effect that the Proposal will have on the time for the completion of the Project.

9. A statement as to the time by which a Change Order adopting the Proposal must be executed or when the Engineer must have given verbal approval.

Proposals will be processed expeditiously; however, the City will not be liable for any delay in acting upon any Proposal nor for any failure to accept any Proposal pursuant to this Special Provision.

The Engineer will be the sole judge of the acceptability of a Proposal and of the estimated net savings in construction costs from the adoption of all or any part of the Proposal. The Contractor will be notified in writing by the Engineer as to whether his/her Proposal has been accepted. The decision by the Engineer is final.

When the City deems such action to be appropriate, it reserves the right to require the Contractor to share equally in the cost to the City of investigating, evaluating, and processing the proposal as a condition for the consideration of such Proposal. Such cost must be shared whether the Proposal is accepted or rejected. When such a condition is imposed, the City will estimate these costs and the Contractor must indicate his acceptance thereof in writing. Such acceptance will authorize the City to deduct the Contractor's share of the costs from any monies due or that may become due to the Contractor under the Contract.

If the Contractor's Proposal is accepted in whole or in part, the necessary Contract Modifications and Contract Price Adjustments will be affected by the execution of a Change Order which will specifically state that it is executed pursuant to this Special Provision.

The Contractor must continue to perform the work in accordance with the requirements of the Contract until a Change Order incorporating the Proposal has been executed or until he/she has been given verbal approval by the Engineer that his/her Proposal has been accepted. If the Change Order has not been executed or he/she has not been given verbal approval on or before the date specified on the attached cost reduction incentive proposal form or on or before such other date as the Contractor may have subsequently specified in writing, the Proposal may be deemed to be rejected.

The executed Change Order will incorporate the changes in the Plans, Specifications, or other requirements of the Contract which are necessary to permit the Proposal, or such part of it which has been accepted, to be put into effect, and will include any condition – upon which the City's approval thereof is based, if such approval is conditional. The executed Change Order may also extend the time for the completion of the Contract if such an extension has been deemed to be warranted by the Engineer as a result of his evaluation of the Proposal.

The executed Change Order will also establish the estimated net savings in the cost of performing the Work attributable to the Proposal effectuated by the Change Order. In determining the net savings, the right is reserved to the Engineer to disregard the Contract bid prices if, in his/her judgment, such prices do not represent a fair measure of the value of the Work to be performed or to be deleted. The net savings will be established by determining the Contractor's cost of performing the Work, taking into account his/her cost of developing the Proposal and implementing the change, and reducing this amount by any ascertainable collateral costs to the City. The executed Change Order may provide that the Contractor be paid 50 percent of the estimated net savings amount.

The executed Change Order may also provide for the adjustment in Contract prices. Contract prices may be adjusted by subtracting the City's share of the accrued net savings.

The amount specified to be paid to the Contractor in the executed Change Order which effectuates a Cost Reduction Proposal will constitute full compensation to the Contractor for the Cost Reduction Proposal and the performance of the work thereof pursuant to the said Change Order.

Upon acceptance of a Cost Reduction Incentive Proposal, any restrictions imposed by the

Contractor on its use or on disclosure of the information will become void, and the City thereafter will have the right to use all or any part of the Proposal without obligation or compensation of any kind to the Contractor.

COST REDUCTION INCENTIVE PROPOSAL FORM

TO: CIP City Engineer

FROM:

PROJECT NAME: WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1

PROJECT NUMBER: WW1901.401

DATE:

Summary of Change (Brief description of proposed change including advantages and disadvantages):

ESTIMATED COST SUMMARY (Attached detailed estimate):

A.	Original Cost:	$
B.	Proposed Cost:	$ _____
C.	Construction Savings (A-B):	$ _____
D.	Gross Savings (Included OH %, Bond %)	$ _____
E.	Contractor Implementing	$_____
F.	City Implementing Cost:	$_____
	Reduction in Contract Price (C+D-E-F) x 50%:	$ _____

Date by which a Change Order must be issued so as to obtain maximum cost reduction:

CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CONTRACTOR'S AFFIDAVIT REGARDING SETTLEMENT OF CLAIMS

_____, Arizona
Date _____

Project Name: WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1
City Project No.: WW1901.401

To the City of Chandler, Arizona

Gentlemen:

This is to certify that all lawful claims for materials, rental of equipment and labor used in connection with the construction of the above project, whether by subcontractor or claimant in person, have been duly discharged.

The undersigned, for the consideration of $_____, as set out in the final pay estimate, as full and complete payment under the terms of the contract, hereby waives and relinquishes any and all further claims or right of lien under, in connection with, or as a result of the above described project. The undersigned further agrees to indemnify and save harmless the City of Chandler against any and all liens, claims or liens, suits, actions, damages, charges and expenses whatsoever, which said City may suffer arising out of the failure of the undersigned to pay for all labor performances and materials furnished for the performance of said installation.

Signed and dated at _____, this _____ day of _____ 20_____.

_____
CONTRACTOR

By _____

STATE OF ARIZONA)
) SS
COUNTY OF MARICOPA)

The foregoing instrument was subscribed and sworn to before me this _____ day of _____ 20 _____.

_____
Notary Public

_____
My Commission Expires

PERFORMANCE BOND

ARIZONA STATUTORY PERFORMANCE BOND
PURSUANT TO TITLES 28, 34, AND 41, ARIZONA REVISED STATUTES
(Penalty of this bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), and _____ (hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____(hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, 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 _____ day of _____, 20___ for construction of **WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1**, **WW1901.401** which contract is hereby referred to and made a part hereof as fully and to the same extent as if copies at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal faithfully performs and fulfills all the undertakings, covenants, terms, conditions and agreements of the contract during the original term of the contract and any extension of the contract, with or without notice of the Surety, and during the life of any guaranty required under the contract, and also performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, the above obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

PAYMENT BOND

ARIZONA STATUTORY PAYMENT BOND
PURSUANT TO TITLES 28, 34, AND 41, OF THE ARIZONA REVISED STATUTES
(Penalty of this Bond must be 100% of the Contract amount)

KNOW ALL MEN BY THESE PRESENTS THAT:_____

(hereinafter "Principal"), as Principal, and _____(hereinafter "Surety"), a corporation organized and existing under the laws of the State of _____ with its principal office in the City of _____, holding a certificate of authority to transact surety business in Arizona issued by the Director of the Department of Insurance pursuant to Title 20, Chapter 2, Article 1, as Surety, are held and firmly bound unto _____ (hereinafter "Obligee") in the amount of _____ (Dollars) ($_____), for the payment whereof, the 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 _____ day of _____, 20___ for construction of **WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1**, **WW1901.401** 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 Principal promptly pays all moneys due to all persons supplying labor or materials to the Principal or the Principal's subcontractors in the prosecution of the work provided for in said contract, this obligation is void. Otherwise it remains in full force and effect.

PROVIDED, HOWEVER that this bond is executed pursuant to the provisions of Title 34, Chapter 2, Article 2 Arizona Revised Statutes, and all liabilities on this bond will be determined in accordance with the provisions, conditions and limitations of Title 34, Chapter 2, Article 2, Arizona Revised Statutes, to the same extent as if it were copied at length in this Contract.

The prevailing party in a suit on this bond may recover as part of the judgment reasonable attorney fees that may be fixed by a judge of the court.

Witness our hands this _____ day of _____, 20__.

_____
PRINCIPAL SEAL

_____
AGENT OF RECORD

By _____

_____
SURETY SEAL

_____
AGENT ADDRESS

DISPUTE RESOLUTION

A. INFORMAL DISPUTE RESOLUTION

The parties to the Contract agree that time is of the essence in relation to performance of the Contract and completion of the Project, therefore any and all disputes in relation to the Contract will initially be referred to the Project Manager, the Design Professional Representative and/or the Contractor Representative as applicable to the dispute, for immediate resolution. If, after good faith efforts to reach a resolution, none is reached, any party to the dispute may submit the dispute to the Dispute Resolution Representative ("DRR") process set forth below, which is intended to be an expedited process.

B. DISPUTE RESOLUTION REPRESENTATIVE ("DRR") PROCESS

1. The Parties under the Contract agree that all claims and disputes in relation to the Project which are not resolved in the ordinary course of the Project ("Claim" or "Claims") will, as a prerequisite to any mediation, or litigation of the Claim, first be submitted for resolution between the designated Dispute Resolution Representatives of the Parties as set forth herein (the "DRR Process").

2. The DRR Process will be initiated through service of a DRR Notice as set forth below:

   a. For claims by the Contractor or the Design Professional, the DRR Process will be initiated by the party asserting the claim serving written notice on the City setting forth in detail: (i) the basis for the claim; (ii) the effect of the Claim upon the construction of, and/or Project Schedule for, the Project;
   (iii) the specific relief requested, the amount thereof, and how such was calculated; (iv) the parties involved in the Claim, and how they are involved; (v) the specific contract provisions in the Contract Documents (including, if applicable, drawings and specifications) which apply; and (vi) efforts made to date to resolve the Claim.

   b. For claims by the City, the DRR process will be initiated by the City providing written notice to the other parties of the basis and amount of its claim, the parties involved in the Claim, and how they are involved, the provisions in the Contract Documents that apply, and the relief requested.

   c. The DRR Notice will be hand-delivered and e-mailed to the other parties' designated Dispute Resolution Representatives.

3. The other parties will respond in writing to the DRR Notice ("DRR Response") within ten (10) calendar days of receipt of the DRR Notice, setting forth those items set forth in the DRR Notice that they agree with, dispute, and/or have questions concerning. The DRR Response will be hand-delivered and e-mailed to the other parties' Dispute Resolution Representatives.

4. The designated Dispute Resolution Representatives for the Parties to the claim will then meet as soon as possible and in any event within twenty (20) calendar days of submission of the DRR Notice (regardless of whether a DRR Response has been submitted by all parties involved in the dispute), at a mutually agreed upon time and place, to attempt to resolve the Claim based upon the DRR Notice and DRR Response.

5. At any time after the first meeting required above, either party may terminate the DRR Process by written notice to the other party.

6. The parties may agree, in writing, to extend or modify the time limits or other provisions of the DRR process in relation to a specific pending Claim.

7. Unless otherwise designated in a written notice to the other parties, the City and the representatives of the Contractor and of the Design Professional will act as the parties' designated Dispute Resolution Representatives.

8. If a resolution of the Claim is reached, that resolution must be set forth in writing and must be signed by the Parties' designated Dispute Resolution Representative. If the resolution involves a change in any Contract Documents, the Contract Price, the Project Schedule, or any other change requiring a written Change Order or Amendment, the parties must execute an appropriate written Change Order or Amendment pursuant to the terms of the Contract Documents.

C. MEDIATION

1. Unless extended by written agreement of the parties involved in the dispute, any Claim not resolved through the DRR process set forth above within five (5) calendar days after the meeting required under B (4) above, or after the DRR is terminated pursuant to ¶ B (5) above, whichever is earlier, will be submitted to mediation as a condition precedent to litigation by either party.

2. The mediation will be commenced by written demand upon the other party for mediation. If the parties cannot agree upon a mediator within ten (10) calendar days of the written demand, either party may make a request to the Civil Presiding Judge of the Maricopa County Superior Court to appoint a mediator. The mediation will occur within forth (40) calendar days of the written demand for mediation, unless the parties agree, in writing, to a longer period of time.

3. The qualifications for the mediator will be that he/she be: (a) an experienced mediator, arbitrator or litigator of construction disputes; and (b) having engaged a significant portion of his/her time involving and/or resolving construction disputes for at least the past five (5) years.

4. Each party will provide to the other party and the mediator all of the information and documentation required under B(1) and (2) above, together with any additional information and documentation which the party believes relevant. In addition, the parties will exchange, and provide to the mediator such additional memoranda, information and/or documentation, as the

mediator may request, and in the form and at such times, as the mediator may direct.

5. The parties will share the mediator's fee and any filing fees equally. The mediation will be held in Chandler, Arizona, unless another location is mutually agreed upon. Agreements reached in mediation will be specifically enforceable in any court having jurisdiction thereof.

D. LITIGATION

Any claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those claims waived as provided for in the Contract Documents, must be resolved through litigation in the Maricopa County, Arizona Superior Court.

CITY OF CHANDLER, ARIZONA
PUBLIC WORKS & UTILITIES DEPARTMENT

CERTIFICATE OF COMPLETION

PROJECT NAME:	**WATER RECLAMATION FACILITY IMPROVEMENTS – GMP 1**		
CITY PROJECT NO.:	**WW1901.401**		
If Federally Funded:			
FEDERAL NO.:	**WW1901.401**	**TRACS NO:**	**WW1901.401**

(*This section to be completed by Prime*)
I HEREBY CERTIFY THAT ALL GOODS AND/OR SERVICES REQUIRED BY CITY OF CHANDLER FOR THIS PROJECT HAVE BEEN DELIVERED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND BID SPECIFICATIONS AND ALL ACTIVITIES REQUIRED BY THE CONTRACTOR UNDER THE CONTRACT HAVE BEEN COMPLETED AS OF THE COMPLETION DATE LISTED HERE:

COMPLETION DATE:	

PRIME

FIRM NAME:			
PRINCIPAL:			
TITLE:			
SIGNATURE:		DATE:	

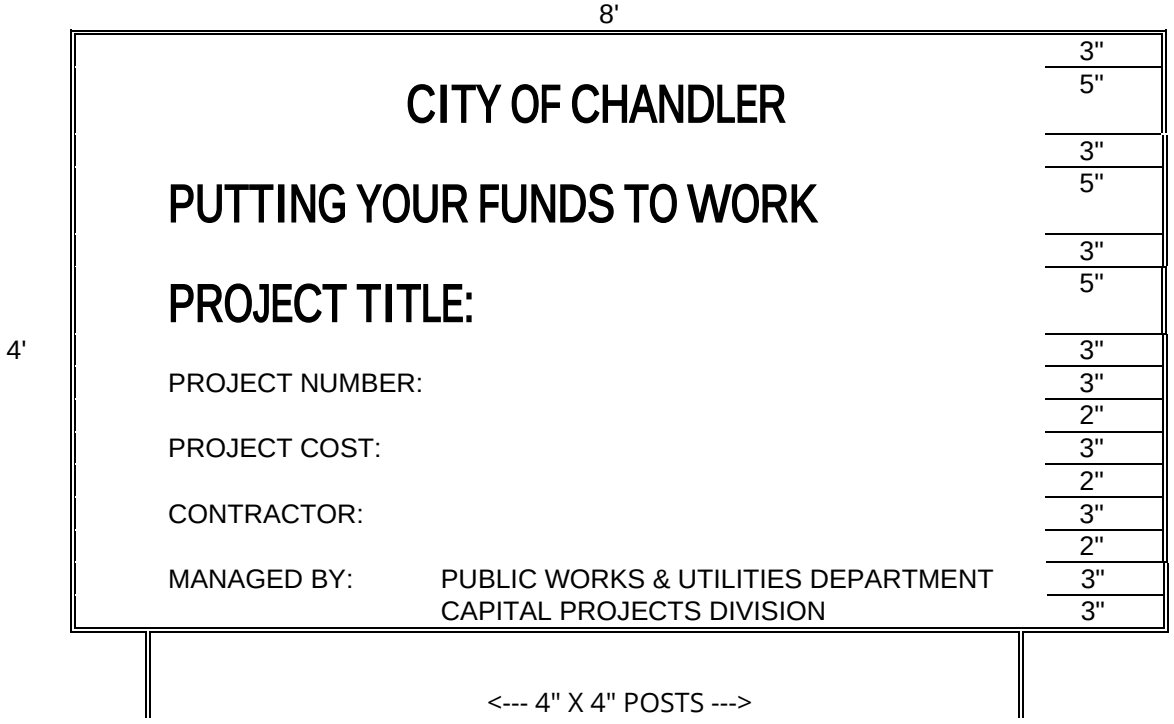
CERTIFIED BY ENGINEER/CONSULTANT:

FIRM NAME:			
SIGNATURE:		DATE:	

PROJECT ACCEPTED BY CITY OF CHANDLER:

FIRM NAME:			
SIGNATURE:		DATE:	

CONSTRUCTION SIGN DETAIL



NOTES:

SIGN(S) MUST BE FURNISHED AND ERECTED PRIOR TO COMMENCEMENT OF CONSTRUCTION. POSTS MUST BE ANCHORED A MINIMUM OF TWO FEET INTO THE GROUND. BOTTOM OF SIGN MUST BE A MINIMUM OF FOUR FEET ABOVE THE GROUND.

TYPICAL PROJECT IDENTIFICATION SIGN FOR GENERAL PROJECTS MUST BE NON-REFLECTORIZED GREEN BACKGROUND, AND NON-REFLECTORIZED WHITE LETTERS AND NUMERALS.

ONE SIGN MUST BE ERECTED FOR BUILDINGS AND OTHER LIMITED AREA SINGLE SITES. FOR MULTIPLE SITES, ONE SIGN MUST BE ERECTED AT EACH SITE.

FOR LINEAR PROJECTS ONE HALF MILE OR LONGER, PLACE ONE SIGN AT EACH END OF THE PROJECT.

COST OF THE WORK

(APPLICABLE SOLELY TO CONSTRUCTION MANAGER AT RISK AND JOB ORDER CONTRACTING)

SECTION 1 – COSTS TO BE REIMBURSED

1.1 Cost of the Work

The term Cost of the Work will mean costs necessarily incurred by Contractor in the proper performance of the Work. Such costs must be at rates not higher than the standard paid at the place of the Project except with prior consent of City. The Cost of the Work will include only the items set forth in this Section 1.

1.2 Labor Costs

1.2.1 Wages of construction workers directly employed by the Contractor to perform the construction of the Work at the site or, with City's approval, at off-site workshops. Cost to be reimbursed will be the actual wages paid to the individuals performing the work.

1.2.2 Wages or salaries of the Contractor's supervisory and administrative personnel when stationed at the site with City's approval. No Contractor personnel stationed at the Contractor's home or branch offices will be charged to the Cost of the Work. Non-field office based Contractor management and support personnel are expected to provide service and advice from time to time throughout the job and his/her time devoted to Project matters is considered to be covered by the Contractor's Fee.

1.2.3 Wages and salaries of Contractor's supervisory or administrative personnel who would normally be stationed at the field office in accordance with Section 1.2.2 but who become engaged, at factories, workshops or on the road, in expediting the production or transportation of materials or equipment required for the Work, but only for that portion of his/her time required for the Work. Employee bonuses and/or costs associated with Employee Stock Ownership Plans ("ESOP") will not be considered reimbursable labor or labor burden costs and will be considered non-reimbursable costs considered to be covered by the Contractor's Fee.

1.2.4 Costs paid or incurred by Contractor for taxes, insurance, contributions, assessments and benefits required by law or collective bargaining agreements and, for personnel not covered by such agreements, customary benefits such as sick leave, medical and health benefits, holiday, vacations and pensions, provided such costs are based on wages and salaries included in the Cost of the Work under Subparagraphs 1.2.1 through 1.2.3.

1.2.4.1 Cost of the Work will include the actual net cost to Contractor for worker's compensation insurance attributable to the wages chargeable to the Cost of Work per this Agreement. The actual net cost of worker's compensation must take into consideration all cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, any applicable weekly maximums, etc. Contractor may charge an estimated amount for worker's compensation insurance costs, but will make appropriate cost adjustments to actual costs within 45 days of receipt of actual cost adjustments from the insurance carrier.

1.2.4.3 Overtime wages paid to salaried personnel (if approved in advance in writing by City) will be reimbursed at the actual rate of overtime pay paid to the individual. No time charges for overtime hours worked on the Project will be allowed if the individual is not paid for the overtime worked.

1.2.4.4 Any overtime premium or shift differential expense to be incurred by Contractor for hourly workers will require City's advance written approval before the incremental cost of the overtime premium or shift differential will be considered a reimbursable cost. If the Contractor is required to work overtime as a result of an inexcusable delay or other coordination problems caused by the Contractor or anyone he/she is responsible for, the overtime premium and/or shift differential expense portion of the payroll expense and related labor burden costs will be considered as cost not to be reimbursed.

1.2.4.5 Reimbursable labor burden costs will be limited to payroll taxes, worker's compensation insurance, the employer's portion of union benefit costs for union employees working on the Project, and the actual verifiable fringe benefit costs incurred by Contractor for non-union individuals working on the Project subject to the following maximum percentages for the following reimbursable non-union fringe benefit costs. The following maximums (as a percentage of reimbursable actual wages by individual) will apply for each of the following types of fringe benefit costs specifically attributable to each of the non-union personnel working on the Project:

- Medical Insurance, Dental, Life & AD&D Insurance: 12.00%
- Holiday, vacation and other paid time not worked: 10.00%
- Pension Plan Contributions to Vested Employee Account, Simplified Employee Pension Plans, or 401K matching plans (Note: ESOP related costs are covered by the Contractor Fee) 10.00%

For non-union personnel, no other fringe benefit costs (other than the three specific categories listed immediately above, will be considered reimbursable Cost of Work. Any labor burden costs that are in excess of the amounts considered reimbursable or are otherwise not considered reimbursable under the terms of this agreement are intended to be covered by the Contractor Fee.

1.3 Subcontract Costs

1.3.1 Payments made by Contractor to Subcontractors in accordance with the requirements of the subcontracts.

1.3.2 For Scope of Work Bid Packages typically performed by Subcontractors, Contractor may "self- perform" such work on an actual cost basis subject to an agreed upon Guaranteed Maximum Price for the "self-performed work". The Contractor must, unless agreed to by City in writing, bid his/her proposed guaranteed Maximum Price for the work to be "self-performed" against at least three other interested trade Contractors. All savings under any such Subcontract for "self-performed work" must be applied to reduce the Cost of Work under the Contract and the Guaranteed Maximum Price. For purposes of defining "self-performed work" subject to this provision, any division of Contractor, or any separate Contractor or Subcontractor that is partially owned or wholly owned by the Contractor or any of his/her employees or employee's relatives will be considered a related party entity

and will be subject to this provision regarding "self-performed work". No self-performed work will be allowed to be performed on a Fixed Price basis.

1.3.3 Contractor (with respect to its Suppliers, Subcontractors and all lower tier Subcontractors) must provide City advance written notice and must obtain City's approval for any proposed Subcontract Change Order, Material Purchase Order, or other financial commitment in an amount in excess of $5,000 prior to placing such order or entering into such agreement (regardless of whether or not any such commitment will affect the prime contract Guaranteed Maximum Cost). It is agreed that sums applicable to any Subcontract Change Order, Purchase Order or other financial commitment entered into in violation of the above notice and approval requirement will not be included in the amounts owning to Contractor, Subcontractors or Suppliers whether as Costs of the Work or as reasonable termination costs in the event of termination.

1.4 Costs of Material and Equipment Incorporated in the Completed Construction

1.4.1 Costs, including transportation and storage, of materials and equipment incorporated or to be incorporated in the completed construction.

1.4.2 Costs of materials described in the preceding Subparagraph 1.4.1 in excess of those actually installed to allow for reasonable waste and spoilage. Unused excess materials, in any, will become City's property at the completion of the Work or, at City's option, may be sold by the Contractor. Any amounts realized from such sales must be credited to City as a deduction from the Cost of Work.

1.4.3 Proceeds from the sale of recyclable materials, scrap, waste, etc. will be credited to job cost.

1.5 Costs of Other materials and Equipment, Temporary Facilities and Related Items

1.5.1 Costs, including transportation and storage, installation, maintenance, dismantling and removal of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by construction workers, that are provided by the Contractor at the site and fully consumed in the performance of the Work; and cost (less salvage value) of such items if not fully consumed, whether sold to others or retained by Contractor. Cost for items previously used by Contractor will mean fair market value.

1.5.2 Rental charges for temporary facilities, machinery, equipment, and hand tools not customarily owned by construction workers that are provided by Contractor at the site, whether rented from Contractor or others, and costs of transportation, installation, minor repairs and replacements, dismantling and removal thereof. Rates and quantities of equipment rented will be subject to City's prior written approval.

1.5.2.1 The Projected usage for each piece of equipment to be rented for use on the Project and the estimated total rentals must be considered by Contractor before the piece of equipment is rented so that an appropriate rent versus buy decision can be made. Purchased equipment must be considered "job owned". At the completion of the Project, Contractor must transfer title and possession of all remaining job-owned equipment to City, or Contractor may keep any such equipment for an appropriate fair market value credit to job cost, which will be mutually agreed to by City and Contractor.

1.5.2.2 Each piece of equipment to be rented must have hourly, daily, weekly and monthly rates and the most economical rate available will be reimbursed based on the circumstances of actual need and usage of the piece of equipment while it is stationed at the jobsite. When the piece of equipment is no longer needed for the work, no rental charges will be reimbursed if the piece of equipment remains at the jobsite for the convenience of Contractor.

1.5.2.3 Equipment Rental Rates

1.5.2.3.1 Compensation for equipment used on the Project will be paid in accordance with the Equipment Plan submitted by Contractor in the accepted GMP Proposal and no payments will be made in excess of the rates set forth in the Equipment Plan, or actual documented costs, whichever is less.

1.5.2.3.2 All equipment rental rates and costs are subject to City's right to audit when submitted as part of Equipment Plan and/or at any time during the Project.

1.5.2.4 The aggregate rentals chargeable for each piece of Contractor owned tools or equipment must not exceed 50% of the fair market value of such equipment at the time of its commitment to the Work. The original purchase price and date of purchase of the equipment will be documented with a copy of the purchase invoice for the piece of equipment. Such aggregate limitations will apply and no further rentals will be charged even if a piece of equipment is taken off the job and is later replaced by a similar piece of equipment. For purposes of computing the aggregate rentals applicable to aggregate rental limitations, rental charges for similar pieces of equipment will be combined if the pieces of equipment were not used at the same time.

1.5.2.5 Fair market value for used material and equipment as referred to in the Contract Documents will mean the estimated price a reasonable purchaser would pay to purchase the used material or equipment at the time it was initially needed for the job. Note: This is usually lower than the price a reasonable purchaser would pay for similar new construction material or construction equipment.

1.5.2.6 All losses resulting from lost, damaged or stolen tools and equipment will be the sole responsibility of Contractor, and not City, and the cost of such losses will not be reimbursable under the Contract.

1.5.2.7 Contractor will be required to maintain a detailed equipment inventory of all job-owned equipment (either purchased and charged to job cost or job-owned through aggregate rentals) and such inventory must be submitted to City each month. For each piece of equipment, such inventory should contain at a minimum (1) original purchase price or acquisition cost (2) acquisition date (3) approved Fair Market Value at the time the piece of equipment was first used on the job and (4) final disposition.

1.5.2.8 All costs incurred for minor maintenance and repairs will be reimbursed at actual cost. Such costs include routine and preventative maintenance, minor repairs and other incidental costs. Repairs and/or replacement of a capital nature are considered to be covered by the rental rates. Major repairs and overhauls are not considered routine and ordinary; consequently such costs are not reimbursable and are intended to be covered by the rental

rates.

1.5.3 Costs of removal of debris from the Site.

1.5.4 Costs of document reproductions, facsimile transmissions and long-distance telephone calls, postage and parcel delivery charges, telephone service at the site and reasonable petty cash expenses of the site office.

1.5.5 That portion of the reasonable expenses of Contractor's personnel incurred while traveling in discharge of duties connected with the Work.

1.5.5.1 No travel expenses will be reimbursed to Contractor's representatives unless Project related travel required them to travel to a destination more than 100 miles from the Project location. Any travel involving airfare will require advance written approval by an authorized City's representative.

1.5.6 Costs of materials and equipment suitably stored off the site at a mutually acceptable location, if approved in advance by the City.

1.5.7 Reproduction costs will be the actual costs of reproduction subject to a maximum of five cents ($.05) per square foot for prints and a maximum of five cents ($.05) per 8 ½ by 11-inch page for offset print or photo copied contract documents, specifications, etc. Telephone costs will be the actual costs paid to the third party telephone company for the field office telephone.

1.6 Miscellaneous Costs

1.6.1 That portion of insurance and bond premiums that can be directly attributed to the Contract. The City will reimburse Contractor for contractually required bond at time of first pay application for GMP and Cost-Based contracts upon receipt of proof of payment from the Contractor. If the Contractor completes Work for less than the Contract Price, Contractor must credit the City a pro- rated amount for the unused portion of the bond payment

1.6.1.1 Contractor's actual cost for insurance will be considered to be included within the Maximum limit for General Conditions Costs. All premiums for any insurance and bonds required for the Project must reflect the net actual costs to Contractor after taking into consideration cost adjustments due to experience modifiers, premium discounts, policy dividends, retrospective rating plan premium adjustments, assigned risk pool rebates, refunds, etc.

1.6.1.2 The amount to be reimbursed to Contractor for all contractually required insurance will be actual costs not to exceed a total of 2% of the Contract Value, unless Contractor establishes to City's satisfaction that the actual cost is higher and City agrees to such actual higher cost in writing. If Contractor's cost of contractually required insurance is greater than the amount agreed to be reimbursed per this Contract Provision, the difference will be considered to be covered by the Contractor's Fee. The City will reimburse Contractor for contractually required insurance on a monthly basis for GMP and Cost-Based contracts. If Contractor can demonstrate substantial savings by paying for all insurance in advance, the City may agree to reimburse all insurance costs at time of first pay application

for GMP and Cost-Based contracts with proof of payment from Contractor.

1.6.2 Sales, use or similar taxes imposed by a governmental authority that are related to the Work.

1.6.3 Fees and assessments for the building permit and for other permits, licenses and inspections for which Contractor is required by the Contract Documents to pay.

1.6.4 Fees of laboratories for tests required by the Contract Documents, except those related to defective or nonconforming Work and which do not fall within the scope of ¶ 1.7.3 below.

1.6.5 Royalties and license fees paid for the use of a particular design, process or product required by the Contract Documents; the cost of defending suites or claims for infringement of patent rights arising from such requirement of the Contract Documents; and payments made in accordance with legal judgments against Contractor resulting from such suites or claims and payments of settlements made with City's consent. However, such costs of legal defenses, judgments and settlements must not be included in the calculation of the Contractor's Fee or subject to the Guaranteed Maximum Price.

1.6.6 Data processing costs related to the Work. However, any such data processing costs will be limited to the cost of personal computer hardware used at the field office in the normal day to day administration, management and control of the Project. The aggregate charges for any such hardware must not exceed the Fair Market Value of the hardware at the time it was brought to the field office. If the total charges for any particular piece of hardware reach an amount equal to the Fair Market Value, that particular piece of hardware must be turned over to City whenever it is no longer needed for the Project. If Contractor elects to keep the particular piece of hardware, the job costs must be credited with a mutually agreeable amount which will represent the Fair Market Value of the particular piece of hardware at the time it was no longer needed for the job. Software or other costs associated with the use of computer programs will not be considered to be a reimbursable cost and will be considered to be covered by the Contractor's Fee.

1.6.7 Deposits lost for causes other than Contractor's negligence or failure to fulfill a specific responsibility to City as set forth in the Contract Documents.

1.6.8 Legal, mediation and arbitration costs, including attorneys' fees, other than those arising from disputes between City and Contractor, reasonably incurred by Contractor in the performance of the Work and with City's prior written approval; which approval will not be unreasonably withheld.

1.6.9 Expenses incurred in accordance with Contractor's standard personnel policy for relocation and temporary living allowances of personnel required for the Work, if pre-approved by City in writing. If City authorizes the reimbursement of relocation costs, the reimbursable relocation expenses will be limited to a maximum of $50,000 per person. Any relocation cost incurred by Contractor in excess of the amount reimbursed by City will be considered to be covered by the Contractor's Fee.

1.7 Other Costs and Emergencies

1.7.1 Other costs incurred in the performance of the Work if and to the extent approved in

advance in writing by City.

1.7.2 Costs due to emergencies incurred in taking action to prevent threatened damage, injury or loss in case of an emergency affecting the safety of persons and property.

1.7.3 Costs of repairing or correcting damaged or nonconforming Work executed by Contractor, Subcontractors or Suppliers, provided that such damaged or nonconforming Work was not caused by negligence or failure to fulfill a specific responsibility of Contractor and only to the extent that the cost of repair or correction is not recoverable by Contractor from insurance, sureties, Subcontractors or Suppliers.

1.8 Related Party Transactions

1.8.1 The term "related party" will mean a parent, subsidiary, affiliate or other entity having common ownership or management with Contractor; any entity in which any stockholder in, or management employee of, Contractor owns any interest in excess of ten percent in the aggregate; or any person or entity which has the right to control the business or affairs of Contractor. The term "related party" includes any member of the immediate family of any person identified above.

1.8.2 If any of the costs to be reimbursed arise from a transaction between Contractor and a related party, Contractor must notify City in writing of the specific nature of the contemplated transaction, including the identity of the related party and the anticipated cost to be incurred, before any such transaction is consummated or cost incurred. If City, after such notification, authorizes in writing the proposed transaction, then the cost incurred will be included as a cost to be reimbursed, and Contractor must procure the Work, equipment, goods or service from the related party, as a Subcontractor. If City fails to authorize the transaction, Contractor must procure the Work, equipment, goods or service from some person or entity other than a related party.

SECTION 2 – COSTS NOT TO BE REIMBURSED

2.1 The Cost of Work must not include:

2.1.1 Salaries and other compensation of Contractor's personnel stationed at Contractor's principal office or offices other than the site office, except as specifically provided in Subparagraphs 1.2.2 and 1.2.3.

2.1.2 Expenses of Contractors' principal office and offices other than the site office.

2.1.3 Overhead and general expenses, except as may be expressly included in Section 1.

2.1.3.1 Costs of Contractor's home office computer services or other outside computer processing services will be considered overhead and general expense. Accordingly, Contractor should not plan to perform any such computer related services or alternatives at the field office when such services or functions can be performed at Contractor's home or branch offices, or other outside service locations.

2.1.4 Contractor's capital expenses, including interest on Contractor's capital employed for the Work.

2.1.5 Rental costs of machinery and equipment, except as specifically provided in subparagraph 1.5.2.

2.1.6 Except as provided in Subparagraph 1.7.3 of the Agreement, costs due to the negligence or failure to fulfill a specific responsibility of Contractor, Subcontractors and Suppliers or anyone directly or indirectly employed by any of them or for whose acts of them may be liable.

2.1.7 Any cost not specifically and expressly described in Section 1.

2.1.8 Costs, other than costs included in Change Orders approved by City that would cause the GMP to be exceeded.

SECTION 3 – DISCOUNTS, REBATES, REFUNDS AND SAVINGS

3.1 Cash discounts obtained on payments made by Contractor will accrue to City if (1) before making the payment, Contractor included them in an Application for Payment and received payment therefore from City, or (2) City has deposited funds with Contractor with which to make payments; otherwise, cash discounts will accrue to Contractor. Trade discounts, rebates, refunds and amounts received from sales or surplus materials and equipment will accrue to City, and Contractor must make provisions so that they can be secured.

3.1.1 Cost of the Work will be credited with all insurance policy discounts, performance and payment bond rebates or refunds, refunds or return premiums from any Subcontractor default insurance, refunds or rebates from any Contractor controlled insurance programs applicable to the Project, merchandise rebates of any nature, refunds of any nature, insurance dividends; and a portion of any volume rebates or free material credits earned with purchase of material or other goods and services charged to the job.

3.1.2 "Cash" discounts which may accrue to Contractor will be limited to a maximum of 1.5% of invoice cost. Any portion of "Cash" discounts greater than 1.5% will automatically accrue to City if Contractor is eligible to take advantage of the discounts.

3.2 Amounts that accrue to City in accordance with the provisions of Paragraph 3.1 will be credited to City as a deduction from the Cost of the Work.

3.3 Any and all savings on the GMP, or any separately guaranteed items comprising the GMP, will belong to City, subject to any express right in the Contract for Contractor to share in savings. Savings are subject to City's right to audit, and may be audited separately.

SECTION 4 – GENERAL CONDITIONS COSTS

4.1 General Conditions Costs may include, but are not limited to, the following types of costs incurred by Contractor during construction of the Work to the extent they are reimbursable Costs of the Work as delineated above: payroll costs for Work conducted at the site, payroll costs for the superintendent and full-time general foremen, payroll costs for management

personnel resident and working on the site workers not included as direct labor costs engaged in support (e.g. loading/unloading, clean-up, etc.), administrative office personnel, costs of offices and temporary facilities including office materials, office supplies, office equipment, minor expenses, utilities, fuel, sanitary facilities and telephone services at the site, costs of liability insurance premiums not included in labor burdens for direct labor costs, costs of bond premiums, costs of consultants not in the direct employ of Contractor or Subcontractors, fees for permits and licenses.

4.2 General Conditions Costs may be paid on a percentage of the Contract Price or on a lump/stipulate sum basis as set forth in the Contract. All costs included in the General Conditions Costs will not be separately invoiced to or paid by City.

4.3 The total amount of General Conditions Costs for the Work may be divided by the number of days allowed for performance of the Work, to determine a fixed daily rate for General Conditions Costs that may be used in computing the General Conditions Costs allocated to any period of time, or for any adjustments in the General Conditions Costs agreed to in writing by City.

LANDSCAPE ESTABLISHMENT PERIOD

Section 1 – Description and General

Contractor is in direct control of work performed under the Landscape Establishment Period. If work is subcontracted, a representative of the Contractor will be present at the site of the work for all hours that the subcontractor works. Subcontracting of Landscape Establishment work will be permitted for weed eradication with herbicides, because of special licensing. A licensed temporary service may be used to supply labor to Contractor if Contractor has received approval from City Representatives. Contractor will submit the required subcontract documentation.

Contractor must provide adequate personnel to accomplish the required maintenance of the plant materials at intervals acceptable to City Representatives.

If not healthy at the end of the maintenance period, the maintenance must be continued until the plant material is approved by City.

1.1 Time and Schedule

Unless otherwise expressly agreed to in writing by City, the Landscape Establishment Period will be per General Conditions Section 6.5.4.

1.2 Planted Stock and Seeding Establishment

1.2.1 Tree planting and staking must be per City of Chandler Standard Detail C-801.

1.2.2 All trees will stand erect on their own without stakes when brought to this site. If the tree cannot stand on its own when nursery stakes are removed, the tree will be removed and replaced.

1.3 Pre-Emergent Herbicide and Weed Control

1.3.1 Contractor will provide three applications of an approved pre-emergent herbicide on all unpaved areas of the project, as directed by City Representatives, to control weed growth in all areas of the project. The number of applications may be increased as directed by the City Representative, and at no additional cost to City, if the City Representative deems additional applications are required to control weed growth.

1.3.2 Application sequence will be approved in advance by City. The first application of pre-emergent will be completed prior to the application of Decomposed Granite and will be included with the cost of the Decomposed Granite as specified and part of the Construction Phase portion of work. The second application of pre-emergent will be completed after installation of the Decomposed Granit and no later than half-way through the Landscape Establishment Period. The third and final application of pre-emergent will be applied 15 days prior to completion of the Landscape Establishment portion of the project. The second and third pre-emergent applications will be included with the cost of Landscape Establishment. Watering will be completed in accordance with the manufacturer's recommendations, as included and as related to each application.

1.3.3 The pre-emergent herbicide will be applied in accordance with the Technical Specifications and the recommendations of the pre-emergent herbicide manufacturer, as approved by City Representatives.

1.3.4 The control of weeds will be accomplished by the use of herbicides. Manual removal of weeds will be required, after herbicides have taken affect.

1.3.5 Contractor is responsible for the removal and disposal of all trash and debris that during the Landscape Establishment Period. Contractor will keep the project in a neat and orderly manner during the duration of the Landscape Establishment Period.

1.4 Water

The water used during Landscape Establishment to properly maintain the plant material will be furnished by City, at designated sources from within the project limits, at no charge to Contractor. Contractor will be responsible for all equipment, materials and labor necessary to load, transport and unload water for watering purposes.

1.5 Plant Material Replacements

The plant material replacement will be considered as included in the work for Landscape Establishment, and will be made at no charge to the City.

1.5.1 Shrub and Plant Replacement - During the second half of the Landscaping Establishment period, Contractor will provide, where required, plant replacements as follows:

Original Size	**Replacement Size**
1 gallon	5 gallon
5 gallon	15 gallon
15 gallon	24-inch box
36-inch box	48-inch box

1.5.2 Tree Replacement – During the second half of the Landscape Establishment Period, Contractor will provide plant material replacements for existing plants that die as follows:

Existing Plant Material Sizes	**Replacement Size**
Trees:	
2-inch Caliper	24-inch box
4-inch Caliper	36-inch box
6-inch Caliper and greater	54-inch box
Shrubs:	
All Existing Shrubs	15 gallon

1.6 Measurement and Payment

See Technical Specifications for Measurement Payment provisions.

EXHIBIT C

TECHNICAL SPECIFICATIONS

CITY OF CHANDLER

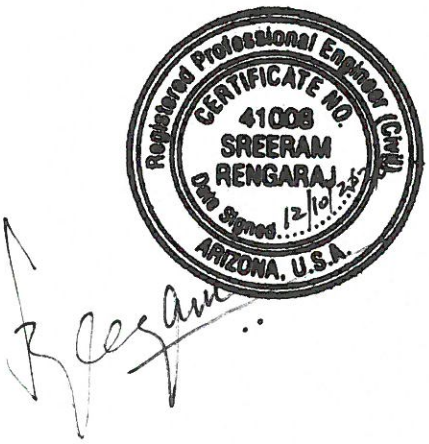
PUBLIC WORKS & UTILITIES

Water Reclamation Facility Improvements

Project No. WW1901.201

GUARANTEED MAXIMUM PRICE (GMP) 1

December 10, 2020



SPECIFICATIONS
FOR
WRF IMPROVEMENTS PROJECT
GUARANTEED MAXIMUM PRICE (GMP) 1
CITY OF CHANDLER PUBLIC WORKS AND UTILITIES DEPARTMENT
DECEMBER 10, 2020

The attention of the contractor submitting GMP for the above referenced project is called to the following plans & specifications. The items set forth herein, whether of omission, addition, substitution, or clarification, are all to be included as a procurement package as part of the proposed work. Along with the specifications, preliminary drawings and Process/Instrumentation Diagrams (P&IDs) of the filtration system are included for vendor review. The vendor shall review the attached information and acknowledge/confirm conformance of their proposal to the P&IDs and the layout of the equipment. Any modifications required for the proper functioning of the proposed equipment shall be included along with the proposal. If no information is provided in the bid package, it is assumed that the proposed equipment will operate as specified within the reference layout and P&IDs provided with this GMP. The vendor shall also include the duration required for shop drawing preparation and the duration from the time of approved shop drawings to delivery of equipment on-site with the bid package. In addition, the vendor shall provide expedited durations for shop drawing preparation and equipment delivery from time of approved shop drawings along with associated costs in the bid package as a separate line item.

Include the following Specification Sections and Figures in the Contract Documents.

I. CONTRACT AND SPECIFICATIONS

SECTION 01010 – Summary of Work

Include Section 01010 – Summary of Work attached as Attachment One of this Procurement Package.

SECTION 01300 – Submittals

Include Section 01300 – Submittals attached as Attachment One of this Procurement Package.

SECTION 01640 – Materials and Equipment
Include Section 01640 – Materials and Equipment attached as Attachment One of this Procurement Package.

SECTION 01650 – Starting of Systems
Include Section 01650 – Starting of Systems attached as Attachment One of this Procurement Package.

SECTION 01660 – Field Tests of Equipment
Include Section 01660 – Field Tests of Equipment attached as Attachment One of this Procurement Package.

SECTION 01730 – Operation and Maintenance Data
Include Section 01730 – Operation and Maintenance Data attached as Attachment One of this Procurement Package.

SECTION 01750 – Spare Parts and Maintenance Materials
Include Section 01750 – Spare Parts and Maintenance Materials attached as Attachment One of this Procurement Package.

SECTION 01821 – Instruction of Operations and Maintenance Personnel
Include Section 01821 – Instruction of Operations and Maintenance Personnel attached as Attachment One of this Procurement Package.

SECTION 03300 – Cast-In-Place Concrete
Include Section 03300 – Cast-In-Place Concrete attached as Attachment One of this Procurement Package.

SECTION 09900 – Painting
Include Section 09900 – Painting attached as Attachment One of this Procurement Package.

SECTION 11285 – Hydraulic Gates and Stop Logs
Include Section 11285 – Hydraulic Gates and Stop Logs attached as Attachment One of this Procurement Package.

SECTION 11400 – Disc Filters
Include Section 11400 – Disc Filters attached as Attachment One of this Procurement Package.

SECTION 13447 – Electric Motor Actuators
Include Section 13447 – Electric Motor Actuators attached as Attachment One of this Procurement Package.

SECTION 16160 – Enclosures
Include Section 16160 – Enclosures attached as Attachment One of this Procurement Package.

SECTION 16161 – Control Panels
Include Section 16161 – Control Panels attached as Attachment One of this Procurement Package.

SECTION 16170 – Grounding and Bonding
Include Section 16170 – Grounding and Bonding attached as Attachment One of this Procurement Package.

SECTION 16225 – Electric Motors 250 HP or Less
Include Section 16225 – Electric Motors 250 HP or Less attached as Attachment One of this Procurement Package.

SECTION 16474 – Motor Control Equipment
Include Section 16474 – Motor Control Equipment attached as Attachment One of this Procurement Package.

SECTION 16476 – Low Voltage Circuit Breakers
Include Section 16476 – Low Voltage Circuit Breakers attached as Attachment One of this Procurement Package.

SECTION 16482 – Solid State Motor Controllers
Include Section 16482 – Solid State Motor Controllers attached as Attachment One of this Procurement Package.

SECTION 16951 – Short Circuit, Coordination, and Arc-Flash Hazard Report
Include Section 16951 – Short Circuit, Coordination, and Arc-Flash Hazard Report attached as Attachment One of this Procurement Package.

SECTION 17325 – Turbidity and TSS Analyzer
Include Section 17325 – Turbidity and TSS Analyzer attached as Attachment One of this Procurement Package.

SECTION 17454 – Operations and Control Description
Include Section 17454 – Operations and Control Description attached as Attachment One of this Procurement Package.

II. FIGURES (PRELIMINARY – FOR RFERENCE ONLY)

FIGURE 1 – Airport WRF Filters Overall Plan
Figure 1 – Airport WRF Filters Overall Plan attached as Attachment Two of this Procurement Package.

FIGURE 2 – Airport WRF Filter Basin 5 Plan
Figure 2 – Airport WRF Filter Basin 5 Plan attached as Attachment Two of this Procurement Package.

FIGURE 3 – Airport WRF Filter Pump Gallery
Figure 3 – Airport WRF Filter Pump Gallery Plan attached as Attachment Two of this Procurement Package.

FIGURE 4 – Airport WRF Filter Section 1
Figure 4 – Airport WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 5 – Airport WRF Filter DS1 P&ID – Sheet 1 of 3
Figure 5 – Airport WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 6 – Airport WRF Filter DS1 P&ID – Sheet 2 of 3
Figure 6 – Airport WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 7 – Airport WRF Filter DS1 P&ID – Sheet 3 of 3
Figure 7 – Airport WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 8 – Ocotillo WRF Filters Overall Plan
Figure 8 – Ocotillo WRF Filters Overall Plan attached as Attachment Two of this Procurement Package.

FIGURE 9 – Ocotillo WRF Filter Basin 4 Plan
Figure 9 – Ocotillo WRF Filter Basin 4 Plan attached as Attachment Two of this Procurement Package.

FIGURE 10 – Ocotillo WRF Filter Pump Gallery
Figure 10 – Ocotillo WRF Filter Pump Gallery Plan attached as Attachment Two of this Procurement Package.

FIGURE 11 – Ocotillo WRF Filter Section 1
Figure 11 – Ocotillo WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 12 – Ocotillo WRF Filter DS1 P&ID – Sheet 1 of 3
Figure 12 – Ocotillo WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 13 – Ocotillo WRF Filter DS1 P&ID – Sheet 2 of 3
Figure 13 – Ocotillo WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

FIGURE 14 – Ocotillo WRF Filter DS1 P&ID – Sheet 3 of 3
Figure 14 – Ocotillo WRF Filter Section 1 attached as Attachment Two of this Procurement Package.

ATTACHMENT ONE

GMP 1 - Specifications

SECTION 01010

SUMMARY OF WORK

PART 1 - GENERAL

1.1 SUMMARY

A. The Work to be accomplished under the Pre-Procurement Package Contract Documents consists of procuring the equipment required to install:
   1. Six Disc Filters and all accessories at the Airport WRF.
   2. Four Disc Filters and all accessories at the Ocotillo WRF.
   3. Gates and actuators for the Chandler WRF improvements Project.

B. The following work/notes pertain to both Airport WRF and Ocotillo WRF:
   a. Provide minimum of one year warranty on all warranted materials and labor.
   b. Provide one year warranty on start-up assistance.
   c. Provide on-site, hands-on operator training.
   d. All other miscellaneous work as specified in the Contract Documents.

C. A subsequent package of Contract Documents will include the remainder of the Work for the Chandler WRF Improvements Project including installation of equipment procured as part of this package.

1.2 ACCESS TO AND FROM THE SITE

A. The address for the Chandler Airport WRF is 905 East Queen Creek Road.
   1. The CONTRACTOR'S personnel shall ingress and egress the site utilizing the existing west entrance to the site.

B. The address for the Chandler Ocotillo WRF is 3315 South Old Price Road.
   1. The CONTRACTOR'S personnel shall ingress and egress the site utilizing the existing southwest entrance to the site.

1.3 DESCRIPTION OF SITE

A. The Airport WRF site is located southwest of the Chandler Airport. The property is bounded by Queen Creek Road on the north, McQueen Road on the east, and Appleby Road (a dirt road) on the south. The Consolidated Canal passes through the southeast corner of the property.

B. The Ocotillo WRF site is bounded by Queen Creek Road on the north, S. Price Rd Road on the east, and Old Price Rd on the west.

1.4 PROXIMITY TO CHANDLER MUNICIPAL AIRPORT

A. The proximity of the Airport WRF site to the Chandler Municipal Airport, as a minimum, can create the following concerns:
   1. Aircraft noise levels.
   2. Obstructions to air navigation.
   3. Radio Telemetry Interference.
   4. Bird strike hazards to aircraft.

B. Obstructions to Air Navigation:
   1. Part 77 of the Federal Aviation Regulations (FAR) relates to potential obstructions to air navigation. Due to this Project's proximity to an airport, the FAR requires that a Notice of Proposed Construction be filed with the Federal Aviation Administration (FAA) for this Project. The FAA may require obstruction marking or lighting on construction equipment or may limit the height of construction equipment that can be used on this site.
   2. The CONTRACTOR shall be responsible for notifying the appropriate agencies, obtaining all required permits, and complying with applicable regulations.

C. Radio Telemetry Interference:
   1. The CONTRACTOR shall be responsible for coordination of construction site communications to prevent interference with aircraft communications and navigation.

D. Bird Strike Hazards to Aircraft:
   1. There is a potential for serious damage to an aircraft if the aircraft strikes a bird. The potential for bird strikes is increased by open bodies of water, refuse piles, or other activities which may attract birds.
   2. The CONTRACTOR shall be responsible for mitigation of all such activities associated with the Project.

E. The CONTRACTOR shall be responsible for public safety related to all Work at the WRF site.

F. CONTRACTOR shall provide copies of all documentation/correspondence referenced in this section to the ENGINEER for reference.

1.5 PROXIMITY TO CHANDLER MUNICIPAL TRANSFER STATION

A. The City of Chandler Municipal Transfer Station is located adjacent to the Airport WRF. Construction activities shall not interfere with operation of the transfer station.

B. City of Chandler Solid Waste Management Department utilizes the northwest portion of the site for storage and as a work yard. Construction activities shall not hinder normal operations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

1.1 SUMMARY

A. The CONTRACTOR shall include a completed transmittal form for all submittals. Transmittal forms will be furnished to CONTRACTOR by ENGINEER at the pre-construction conference. Submittals shall be sent to the ENGINEER. CONTRACTOR shall deliver and pick up submittals from ENGINEER'S office located at 1620 W. Fountainhead Pkwy, Suite 501, Tempe, AZ 85282, between the hours of 7:00 a.m. and 4:00 p.m. All submittals shall be addressed to Sreeram Rengaraj.

1.2 SECTION INCLUDES

A. Shop Drawings.

B. Material and equipment record.

C. Samples.

D. Operation and Maintenance (O&M) Manuals.

E. Progress Schedule.

F. Progress reports.

G. Daily reports.

H. Testing results.

I. Pre-construction video.

J. Construction photographs.

K. Record Drawings.

L. Spare parts lists.

M. List of spare parts furnished.

1.3 DATA REFERENCE SYMBOLS AND DESCRIPTIONS

A. The submittal data required for Shop Drawings and operations manuals shall contain, but not necessarily be limited to, that data and material as defined by the coded legend set forth below. The submittal data required shall be as indicated and specified under various headings of the Specifications.
   1. Letters of Certification of Compliance on materials, equipment, etc.
   2. Samples.
   3. Final Certified Drawings showing outline dimensions, foundation layout or mounting information, and other pertinent dimensions.
   4. Field erection instructions, assembly drawings and/or diagrams, detailed reference drawing lists, lists of erection details, and list of spare parts supplied with equipment.
   5. Shop Detail Drawings showing individual sub- assemblies and fabricated pieces with material specifications and other applicable data.
   6. Installation instructions, operating and/or service manuals, and all other data pertinent to operating or servicing the complete apparatus. Preventative maintenance instructions and recommended frequency.
   7. Schematic and wiring diagrams of power, control, and piping systems. A detailed description of operation shall be included for each diagram to describe all modes of operation of the system indicated. Where the integrated system requires interlocking and control of other components in normal operation, these components shall be included in the description of operation.
   8. General bulletins and catalog cuts describing complete apparatus, including operating principles and fundamentals.
   9. Service data sheets showing design performance, utility requirements, etc., as applicable to the specific duty for which the equipment is furnished.
   10. Certified head and capacity curves for pumps. Impeller size furnished and maximum size available shall be noted on these data sheets.
   11. Curves and/or data for overall range of operation from minimum to maximum capacity or load, showing capacity or load, utilities motive medium required, total or incremental differential head, and other pertinent information applicable to the equipment or its component assemblies.
   12. Materials of construction of all components.
   13. Renewal parts list with diagrammatic or cross-section drawings showing part identification. Material analysis or trades designation for each significant part is to be noted on parts lists or on a separate sheet.
   14. Stuffing box sizes; packing sizes; specifications and arrangement; and mechanical seal details, specifications, etc., if furnished in equipment.
   15. Bearing manufacturer's standard identification and/or interchangeable number for all anti-friction bearings in the equipment proper and its accessory items.
   16. Material gradation, design mix, job mix formula, and/or material analysis.
   17. Concrete reinforcement drawings, details, and calculations. Reinforcement drawings shall be redrawn by the CONTRACTOR to allow for clarity and scale necessary for easy review by the ENGINEER.

18. Competed equipment data sheets.

B. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

C. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

1.4 SHOP DRAWINGS

A. A minimum of 1 hard copy of Shop Drawings is required for each submittal. Each submittal shall also include one electronic copy in the latest version of Adobe Acrobat (PDF Extension). Hard copies will not be returned. Disposition of the Shop Drawings will be in accordance with the following schedule:

Action by ENGINEER	Retained by ENGINEER	Returned to CONTRACTOR	No. Required for Resubmittal
Approved	1	0	0
Approved as Corrected	1	0	0
Approved as Corrected, Resubmit	1	0	1
Revise and Resubmit	0	1	1
Rejected	0	1	1
No Action Taken	1	0	0

B. The ENGINEER shall return Shop Drawings to the CONTRACTOR within 35 days of receipt by the ENGINEER.

C. One copy of returned Shop Drawings shall be marked with red line comments.

D. Only one copy of "Revise and Resubmit", "Rejected", and "No Action Taken" Shop Drawings will be stamped.

E. If the CONTRACTOR requires additional copies of "No Exceptions Noted", "Exceptions Noted", or "No Action Taken" Shop Drawings, additional copies shall be included in original submittal.

F. The CONTRACTOR may request submittals be reviewed up to two times for each equipment or construction material item, regardless of manufacturer or supplier, by the ENGINEER. For additional reviews, CONTRACTOR will reimburse the ENGINEER for additional labor as specified in Section 01013, Engineering Services.

G. The CONTRACTOR will be held responsible for any delay in progress of the Work due to resubmittal of Shop Drawings. Time for completion of the Contract will not be extended due to the CONTRACTOR'S failure to promptly submit complete and acceptable Shop Drawings, product data, and samples.

H. Do not execute Work required by Shop Drawings until accepted Shop Drawings are received from the ENGINEER.

I. Before submitting Shop Drawings for review, the CONTRACTOR shall check Shop Drawings for accuracy, ascertain that all Work contiguous with and having bearing on other Work shown on Shop Drawings is accurately drawn, and that Work shown is in conformity with Contract requirements. The CONTRACTOR is responsible for all submittals from subcontractors and suppliers.

J. All such Drawings and details, when submitted, must bear the stamp of approval of the CONTRACTOR, bearing checked data, as evidence that such Drawings and details have been checked by him. Said "stamp" shall clearly state that the CONTRACTOR has checked the Drawings and, by his signature, he so certifies. Any Drawings submitted without such executed stamp of approval, or whenever it is evident (despite the stamp) that the Drawings have not been checked, they will be returned to the CONTRACTOR for resubmission and will not be considered. In such event, it will be deemed that the CONTRACTOR has not complied with this provision and the CONTRACTOR shall bear risk of all delays to the same extent as if no Drawings or details had been submitted.

K. The CONTRACTOR shall prepare composite Drawings and installation layouts, when required to solve tight field conditions. Such Drawings shall consist of dimensioned plans and elevations, and must give complete information particularly as to size and location of sleeves, inserts, attachments, openings, conduits, ducts, boxes, structural interferences, etc. These composite Drawings and installation layouts shall be coordinated in the field by the CONTRACTOR

and his subcontractors for proper relationship to the work of other trades, based on field conditions, and shall be checked and approved by them before submission to the ENGINEER for his final review. The CONTRACTOR shall have competent technical personnel readily available for such coordinating and checking, as well as for supervision of field installation of work as per the Drawings and installation layouts, which have been previously determined by him to be correct and carry the ENGINEER'S review stamp.

L. Submission of Shop Drawings (in either original submission or when resubmitted with corrections) constitute evidence that the CONTRACTOR has checked all information thereon, and that he accepts and is willing to perform the Work as shown in a workmanlike manner and in accordance with best standard practice.

M. Cost of any changes in construction due to improper checking and coordination by the CONTRACTOR shall be paid for by the CONTRACTOR, and the CONTRACTOR shall be responsible for all additional costs, including coordination.

N. Shop Drawings shall clearly delineate the following information:
   1. ENGINEER'S name and Project number; Project name and address.
   2. Drawing title, number, date, and scale.
   3. Names of CONTRACTOR, Subcontractor, and fabricator.
   4. Working and erection dimensions.
   5. Arrangements and sectional views.
   6. Necessary details, including complete information for making connections with other work.
   7. Kinds of materials and finishes.
   8. Show descriptive names of materials and equipment, classified item numbers, and locations at which materials or equipment are to be installed in the Work. Use same reference identification as shown on Contract Drawings.

O. If Shop Drawings show variations from Contract Documents because of standard shop practice or other reasons, make specific mention of such variations in a separate memo attached to information listed in Paragraph 1.3.B of this Section.

P. Shop drawing review will be general. It shall not relieve the CONTRACTOR of responsibility for accuracy of such Shop Drawings, nor proper fitting, construction of Work, furnishing of materials, or Work required by Contract Documents and not indicated on Shop Drawings. Shop drawing review shall not be construed as approving departures from Contract Documents.

Q. Review of Shop Drawings and schedules shall not relieve the CONTRACTOR from responsibility for any violation indicated on such Drawings or schedules of local, County, State, or Federal laws, rules, ordinances, or rules and regulations of commissions, boards, or other authorities or utilities having jurisdiction.

R. When product data, consisting of manufacturer's printed literature, is required to be submitted to the ENGINEER, it shall be submitted in original form. Any fading type of reproduction will not be accepted. Pertinent information shall be indicated and irrelevant information shall be crossed out.

S. Action taken by ENGINEER shall apply to entire submittal. ENGINEER shall not approve portions of a submittal while disapproving other portions.

T. Resubmitted submittal shall contain entirety of information to review.

U. The following is a list of anticipated submittals for this project, however it may not be a complete list. This list does not alleviate Contractor from obligations of requirements of each individual Technical Specification that may require additional information. See individual Technical Specification Sections for additional requirements.

CHANDLER WRF IMPROVEMENTS – PROCUREMENT SUBMITTAL LISTING		
ITEM NO.	**SPEC SECT**	**DESCRIPTION OF SUBMITTAL**
1	01650	STARTING OF SYSTEMS
2	01730	OPERATION AND MAINTENANCE MANUALS
3	01750	SPARE PARTS AND MAINTENANCE MATERIALS
4	01821	INSTRUCTION OF O & M PERSONNEL
5	03300	CONCRETE MIX DESIGN
6	09900	PAINTING
7	11285	HYDRAULIC GATES
8	11295	HYDRAULIC VALVES
9	11400	DISC FILTERS
10	13447	ELECTRIC MOTOR ACTUATORS
11	16160	EMCLOSURES
12	16161	CONTROL PANELS
13	16170	GROUNDING AND BONDING
14	16225	ELECTRIC MOTORS 250 HORSEPOWER OR LESS
15	16474	MOTOR CONTROL EQUIPMENT
16	16476	LOW VOLTAGE CIRCUIT BREAKERS
17	16482	SOLID STATE MOTOR CONTROLLERS
18	16951	SHORT CIRCUIT, COORDINATION, AND ARC-FLASH HAZARD REPORT
19	17325	TURBIDITY AND TSS ANALYZER
20	17454	OPERATIONS AND CONTROL DESCRIPTION

1.5 PROCEDURE

A. A letter of transmittal shall accompany each submittal. If data for more than one Section of the Specifications is submitted, a separate transmittal letter shall accompany the data submitted for each Section.

B. All letters of transmittal shall be submitted in duplicate.

C. At the beginning of each letter of transmittal, provide a reference heading indicating the following:
   1. OWNER'S Name City of Chandler
   2. Project Name WRF Improvements Project
   3. Contract No. _____
   4. Transmittal No. _____
   5. Section No. _____

D. If any portion of a Shop Drawing deviates from the requirements of the Contract Documents, CONTRACTOR shall specifically note each variation in his letter of transmittal.

E. All Shop Drawings submitted for approval shall have a title block with complete identifying information satisfactory to ENGINEER.

F. All Shop Drawings submitted shall bear the stamp of approval and signature of CONTRACTOR as evidence that they have been reviewed and verified to the completeness of the submittal by CONTRACTOR. Submittal without this stamp of approval will not be reviewed by ENGINEER and will be returned to CONTRACTOR. CONTRACTOR'S stamp shall contain the following minimum information:

Project Name: WRF Improvements Project

CONTRACTOR'S Name: _____

Date: _____

----------Reference----------

Item: _____

Specifications:

Section: _____

Page No.: _____

Para. No.: _____

Drawing No.: _____ of _____

Location: _____

Submittal No.: _____

Approved By: _____

G. In order to identify and track all submittals as separate and unique items, CONTRACTOR shall utilize the submittal identification numbering system as follows:
   1. The Submittal Number shall be a separate and unique number correlating to each individual submittal that is required to be tracked as a separate and unique item. The Submittal Number shall be a two part, nine character, alpha/numeric number assigned by CONTRACTOR in the following manner:
      a. The first part of the Submittal Number shall consist of five characters that pertain to the applicable Specification Section number.
      b. The second part of the Submittal Number shall consist of three numbers. The first digit identifies the Submittal type as follows:
         1) 0 - Shop Drawing.
         2) 1 - Operations and Maintenance Manual.
         3) 2 - Training Manual.
      c. The second and third digits (numbers 01 to 99) number each separate and unique Submittal submitted under each Specification Section.
      d. A dash shall separate the two parts of the Submittal Number.
      e. A typical Submittal Number for the third Working Shop Drawing submitted under Section 11400, Disc Filter System, would be 11400-0.03.
      f. A typical Submittal Number for the first Working Operations and Maintenance Manual submitted under Section 11285, Hydraulic Gates, would be 11285-1.01.

1.6 MATERIAL AND EQUIPMENT RECORD

A. The CONTRACTOR shall maintain an up-to-date record of all materials and equipment furnished by him and any subcontractors to be incorporated in the Work.
   1. The ENGINEER will furnish the CONTRACTOR a master of the materials and equipment form. The CONTRACTOR shall maintain the records on reproductions of this form in the field office.

B. The CONTRACTOR shall provide the following information on these forms:
   1. The Specification Paragraph and Section Number where material or equipment are called for.
   2. Date ordered.
   3. Date required.
   4. The CONTRACTOR'S purchase order number.
   5. Supplier's purchase order number.
   6. Date promised.
   7. Date received.
   8. Supplier's name and address.
   9. Remarks.

10. Shop Drawings and samples with approval date.
11. Physical dimensions and ratings.
12. Where submittal sheet describes items in addition to that item being submitted, the submitted item shall be clearly marked on the sheet and superfluous information shall be crossed out.

C. Three copies of the materials and equipment record shall be submitted to the ENGINEER with each Application for Payment. If the current record has not been submitted, the Application shall not be reviewed and shall be returned to the CONTRACTOR as incomplete.

D. The CONTRACTOR shall permit free access to these records, including information on items recently received and not yet posted to the record by the ENGINEER or authorized representative of the OWNER at any time.

1.7 SAMPLES

A. Deliver no material to the building site prior to receipt of the ENGINEER'S written approval. Furnish materials equal in every respect to approved samples and execute Work in conformity therewith. Samples shall be provided with respective Shop Drawings.

B. The approval or acceptance of samples will not preclude the rejection of any material upon the discovery of defects in same prior to the Final Acceptance of the completed Work.

C. After a material has been approved, no change in brand or make will be permitted unless satisfactory written evidence is presented to and approved by the ENGINEER that the manufacturer cannot make scheduled delivery of approved material, or that material delivered has been rejected and substitution of suitable material is an urgent necessity, or that other conditions are apparent which indicate approval of such substitute materials to be in best interest of the OWNER. CONTRACTOR shall provide complete Shop Drawings for replacement product.

D. All samples of materials requiring laboratory tests shall be submitted to laboratory for testing not less than 90 days before such materials are required to be used in the work. Submit all other samples for approval within 30 days after signing of the Contract.

E. Submit samples in duplicate, except where greater or lesser number is specifically required by these Specifications. Submittal shall be made only by the CONTRACTOR, unless he has authorized his subcontractor to submit them and has notified the ENGINEER to this effect.

F. Each sample shall be accompanied by a Shop Drawing form and an itemized transmittal form. The transmittal shall contain list of samples, Project, CONTRACTOR, manufacturer, brand, quarry, quality, etc.; also Project number, Specifications reference, ASTM number (if any), and material being furnished. Enclose copies of transmittal with samples. Any deviation from Contract requirements shall be so stated in the transmittal.

G. Label each sample by a securely attached label giving the Project, CONTRACTOR, subcontractor or supplier, manufacturer's name, product trade name and number, material type, Specification Section and Paragraph reference etc.; also Project name and number and ASTM number (if any).

H. Samples shall be of adequate size to permit proper evaluation. The samples submitted shall show the full range of colors, textures and dimensions, and other variable characteristics expected. Samples of different items that must match or whose finish relates shall be delivered at the same time to facilitate coordination.

Samples which are rejected by the ENGINEER must be resubmitted as soon as possible after notification of rejection, and shall be marked "Resubmitted Sample" in addition to other information required.

I. The right is reserved to require submission of samples of any material, any material lists, or any information whether or not specifically specified in the Specifications.

1.8 OPERATION AND MAINTENANCE MANUALS

A. One hard copy and one electronic copy in PDF format of an Operations and Maintenance (O&M) Manual containing the following items, in addition to any instructions packed with the equipment, are required for each individual item of equipment:
   1. Specifications.
   2. Drawings.
   3. Description of each individual item of equipment.
   4. Manufacturer name, model number, and serial numbers.
   5. Name address and phone number of both the manufacturer's customer service department and the local manufacturer's representative.
   6. Installation instructions.
   7. Operation and maintenance instructions, including lubrication schedule and lubricant specification.
   8. Parts list and part numbers.
   9. Additional data to be included in the manual shall be as required in these Specifications.
   10. Temporary storage recommendations.
   11. Warranty information.

B. O&M Manuals are to be submitted to the ENGINEER upon delivery of the equipment to the site. Overall Project substantial completion will not be scheduled until all manuals are approved. Training shall not be scheduled until O&M Manuals are approved. Training shall not be scheduled until 30 days following delivery of approved O&M Manuals to the OWNER. Training shall be scheduled based on draft O&M Manuals upon approval of ENGINEER.

C. The respective manuals for the individual items of equipment shall be combined into bound volumes covering the complete operating installation with individual equipment items tabled separately. Information for equipment subassemblies not manufactured by the major supplier shall also be included with the respective equipment item.

D. Manuals for particular items of equipment which are in the same area (i.e., IMLR Pumps and Submersible Mixers) should be bound in the same volume where practicable.

E. Upon completion of the installation of each item of equipment, the CONTRACTOR shall provide As-Built Drawings of the local control panel to be added to the O&M Manual, as well as set-up parameters such as those required for VFDs, instrumentation, calibration, etc. Manuals for particular items of equipment which are in the same area (i.e., belt press, belt press feed pumps, and conveyors) should be bound in the same volume where practicable.

F. O&M Manuals shall be submitted in 3-ring binders meeting the following criteria:
   1. Binders shall be Wilson Jones Custom View Organization, D-Ring, white, non-stick, back mounted, binder models 362-13W, 386-14W, 386-34W, 386-44W, 386-49W, or 386-54W; or approved equal.
   2. Binder cover insert shall be created using a Microsoft word template supplied by ENGINEER. Modifications to the template shall be approved by the ENGINEER prior to submission of the O&M Manuals. The binder cover insert shall include the Specification number and title as presented within the Contract Documents, manufacturer name, year of purchase, year and month that equipment was placed into operation.
   3. Binder spine insert shall be created using a Microsoft word template supplied by ENGINEER. Modifications to the template shall be approved by the ENGINEER prior to submission of the O&M Manuals. The spine insert shall include the Specification number and title as presented within the Contract Documents, manufacturer name, year of purchase, year and month that equipment was placed into operation. Spine insert shall read top to bottom.

1.9 PROGRESS SCHEDULE

A. Progress Schedule as defined in Section 01310, Progress Schedule.

1.10 DAILY REPORTS

A. The CONTRACTOR will provide to the ENGINEER a daily report on a form provided by the ENGINEER indicating the Work in progress, Work completed, equipment used, numbers and category of personnel, and such other pertinent information as applicable. The daily reports shall be compiled and submitted monthly with the Application for Payment. The Application for Payment will not be reviewed and shall be returned to the CONTRACTOR as incomplete if the reports do not accompany it.

1.11 TESTING RESULTS

A. CONTRACTOR shall furnish to the ENGINEER copies of all testing results for all tests required in the Specifications.

1.12 CONSTRUCTION PHOTOGRAPHS

A. Construction photographs as defined in Section 01380, Construction Photographs.

1.13 RECORD DRAWINGS

A. Record Drawings as defined in Section 01700, Contract Closeout. The CONTRACTOR shall update Record Drawings Monthly and make available for review to the ENGINEER monthly one week prior to the Application for Payment submittal. Failure of the CONTRACTOR to maintain updated Record Drawings can be justification for refusal of Application for Payment.

1.14 UNIT RESPONSIBILITY

A. This Section contains the required Unit Responsibility Form for the CONTRACTOR to use in documenting Work required under this Contract.

B. The Unit Responsibility Form provided in Appendix A to this Section is referenced from other Sections in the Contract Documents. The CONTRACTOR shall submit it with the applicable equipment as required in those Sections.

1.15 CONTRACTOR'S FORMS

A. This Section contains the required forms for CONTRACTOR use in documenting testing Work and other Work required under this Contract. This Section supplements, but does not supersede, specific testing requirements found elsewhere in the Contract Documents.

B. The forms listed below are included in this Section are referenced from other Sections in the Contract Documents. CONTRACTOR may utilize standard forms

when authorized by ENGINEER. Forms will include, but will not necessarily be limited to, the following.

Form Designation	Title
A	Schedule of Values
B	Shop Drawings, Product Data and Sample Transmittal Schedule
C	Request for Change Order Proposal
D	Change Order Proposal
E	Request for Information
F	Request for Alteration
G	CONTRACTOR'S Daily Construction Report
H	Equipment Information Form
I	Manufacturer's Installation Certification Form
J	Equipment Test Report Form
K	Operation and Maintenance Transmittal Form
L	Manufacturer's Instruction Certification Form
M	Motor Data Form
N	Wire and Cable Resistance Test Data Form
O	Installed Motor Test Data Form
P	Dry Transformer Test Data Form
Q	Motor Control Center Test Form
R	Medium Voltage Motor Starter Test Form
S	Medium Voltage Switchgear Test Form
T	Protective Relay Test Form
U	Low Voltage Switchgear Test Form
V	Medium Voltage Load Interrupter Switch Test Form
W	Liquid-Filled Transformer Test Form
X	Automatic Transfer Switch Test Form
Y	Neutral Grounding Resistor Test
Z	Conduit and Wire Termination Sheet (not included)
AA	Loop Wiring and Insulation Resistance Test Data Form
BB	Control Circuit Piping Leak Test Form
CC	Controller Calibration Test Data Form
DD	Panel Indicator Calibration Test Data Form
EE	Recorder Calibration Test Data Form
FF	Signal Trip Calibration Test Data Form
GG	Field Switch Calibration Test Data Form
HH	Transmitter Calibration Test Data Form
II	Miscellaneous Instrument Calibration Test Data Form
JJ	Individual Loop Test Data Form
KK	Loop Commissioning Test Data Form
LL	Pipe Test Report

C. CONTRACTOR shall complete the above referenced forms prior to start-up of each piece of equipment, as listed in the Equipment and Valve Schedule. Each form shall pertain to each equipment number.

D. The CONTRACTOR shall submit to ENGINEER for approval one month after completion of start-up, 3-ring binders with tabs for each process area and include all the forms completed prior to start-up. The forms shall be further tabbed within each process area of each form designation as listed above. For example, the Chemical Facilities tab (22) shall include separate tabs for forms H, J, K, and etc. The CONTRACTOR shall submit five copies of all 3-ring binders to the ENGINEER for approval.

E. All forms are provided in Appendix B of this Section.

1.16 ADDITIONAL SUBMITTALS

A. All additional submittals as required by the Contract Documents.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

APPENDIX A - Unit Responsibility Form

(Job Title)

CERTIFICATE OF UNIT RESPONSIBILITY
for Specification Section _____

_____
(Section title)

In accordance with Paragraph 01600.1.2.B of the Contract Documents, the undersigned manufacturer accepts unit responsibility for all components of equipment furnished under specification Section _____. We hereby certify that these components are compatible and comprise a functional unit suitable for the specified performance and design requirements.

_____
Notary Public

_____
Commission expiration date

Seal:

_____
Name of Corporation

_____
Address

By: _____
Duly Authorized Official

_____
Legal Title of Official

Date: _____

SECTION 01640

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. The CONTRACTOR shall furnish all materials and equipment and perform all operations required to completely install and place in operation the various mechanical apparatus and systems indicated on the Drawings and as specified herein. It is not the intention to mention herein each and every item required. However, all installations shall be complete and operable in the methods intended. These general equipment requirements apply, in general, to all equipment. They shall supplement the detailed Equipment Specifications, but in case of conflict, the Equipment Specifications shall govern.

1.2 RELATED SECTIONS

A. Section 01300, Submittals.

PART 2 - PRODUCTS

2.1 GENERAL

A. Materials and equipment shall be of new, of first quality and best grade, essentially the standard catalog products of reputable manufacturers, and shall be of the type, size, and capacity, and for the type of service specified. It is the intent of these Specifications that the highest quality equipment shall be provided for the intended service. Units proposed shall be carefully matched to the particular hydraulic and mechanical requirements for each installation, and the CONTRACTOR shall submit complete hydraulic and mechanical data for approval of the ENGINEER. Where two or more units of the same class of equipment are required, these units shall be the products of a single manufacturer; however, the component parts of the system need not be the products of the same manufacturer unless otherwise specified.

1. Materials and Workmanship. Materials used in the manufacture of the equipment shall be of the best quality used for the purpose in commercial practice. Materials shall be suitable for service conditions. Iron castings shall be tough, close-grained gray iron free from blowholes, flaws, or excessive shrinkage, and shall conform to ASTM A48. Except where otherwise specified, structural and miscellaneous fabricated steel used in items of equipment shall conform to the Standards of the American Institute of Steel Construction. All structural members shall be considered as subject to shock or vibratory loads. Unless otherwise specified, all steel which will

be submerged, all or in part, during normal operation of the equipment shall have a minimum nominal thickness of 1/4-inch. Equipment shall be installed in accordance with the recommendations of the manufacturer and the best standard practice for each type of equipment.

2. Approval of Materials, Equipment, and Shop Drawings. Detailed Shop Drawings shall be prepared for the equipment to be furnished under this Project. General Drawings for equipment will not be acceptable. Approval of equipment under this provision shall not be construed as authorizing any deviations from the Specification unless the attention of the ENGINEER has been directed to the specific deviation.
    a. The decision of the ENGINEER on any questions concerning the acceptability of materials, equipment, or installation shall be final and binding. The Shop Drawing material required for the various submittals shall be in accordance with the coded legend set forth in Section 01300, Submittals, and as indicated and specified under various headings of these specifications.
3. Nameplates: Equipment shall be furnished with nameplates of bronze, monel, or stainless steel. Aluminum will not be acceptable. Each nameplate shall include pertinent hydraulic and mechanical data. Information shown shall be permanently stamped or cast into each nameplate and shall include the manufacturer's name and model number.
4. ASME Stamp: Where materials and equipment are specified to be constructed in accordance with the standard of the American Society of Mechanical Engineers Code for Unfired Pressure Vessels, the CONTRACTOR shall submit proof that the items furnished under this Section of the Specifications conform to such requirements. The ASME stamp, label, or listing will be acceptable as sufficient evidence that the items conform to these requirements and shall be provided on all pressure vessels falling within the ASME Code jurisdiction.

B. Electric Motors:
1. General: Unless otherwise required by the detailed equipment specifications, motors furnished with equipment shall be rated for continuous duty at 50° C ambient temperature with a 1.15 service factor. Motors designated for use with variable speed drives and where indicated shall be derated to accommodate the application. Where frequent starting occurs, motors shall be designed for frequent starting duty equivalent to the duty service required by the driven equipment. The horsepower rating of each motor shall be as required to drive the equipment under full load, including all losses in speed reducers and power transmission, and to be non-overloading over the entire range of equipment head capacity curves without the use of motor service factors. It is the intent of this general specification to allow the manufacturer's standard motor on integrally constructed motor driven equipment such as appliances, hand tools, etc., that is specified by model number in which a redesign of the complete unit would be required for a motor with other features as may be specified herein. All motors furnished

under these Specifications shall be of recognized manufacture, of adequate capacity for the loads involved, and wound to the current characteristics noted. All motors shall conform to the standards of manufacture and performance of the National Electrical Manufacturers Association as shown in their latest publications.

2. Enclosures: Unless otherwise required by the detailed equipment specifications, the enclosures for motors shall be as indicated below:
   a. Motors installed outdoors shall be totally enclosed or totally enclosed fan-cooled except that vertically mounted motors may be weather protected Type I.
   b. Motors installed indoors may be open drip-proof unless otherwise indicated.
3. Motor horsepower requirements in the equipment specifications are estimated. If the horsepower requirements for the equipment furnished vary from the estimated horsepower, the CONTRACTOR shall be responsible for making all necessary revisions to wiring, conduit, motor starters, circuit breaker, and other electrical equipment at no additional cost to OWNER.
4. Anchor Bolts: Equipment suppliers shall furnish suitable anchor bolts of specified metallurgy for each item of equipment. Anchor bolts, together with templates or setting drawings, shall be delivered sufficiently early to permit setting the anchor bolts when the structural concrete is placed. Two nuts shall be furnished for each bolt. Unless otherwise shown or specified, anchor bolts for items of equipment mounted on baseplates shall be long enough to permit 1-1/2-inch of grout beneath the base plant and to provide adequate anchorage into structural concrete.
5. Equipment Bases: A cast iron or welded steel baseplate shall be provided for each pump and other item of equipment which is to be installed on a concrete base. Each baseplate shall support the unit and its drive assembly, and shall be of a neat design with pads for anchoring the units. Baseplates shall be anchored to the concrete base with suitable anchor bolts and grouted in place.
6. Equipment Guards: All belts or chain drives, fan blades, couplings, and other moving or rotating parts shall be covered on all sides by a safety guard. All safety guards in outdoor locations shall be designed to prevent the entrance of rain and dripping water.
7. Special Tools and Accessories: Equipment requiring periodic repair and adjustment shall be furnished complete with all special tools, instruments, and accessories required for proper maintenance. Equipment requiring special devices for lifting or handling shall be furnished complete with those devices.
8. Standard specifications prepared by recognized organizations mentioned elsewhere shall govern except as provided otherwise by these specifications and/or its accompanying drawings. Special care shall be exercised in requests for quotations and in orders, to refer to the standard specifications and to all modifications thereof.
9. Standard Codes, Regulations, and Specifications: Unless indicated or specified otherwise, all materials and workmanship for the mechanical trades

shall conform to the editions of the various standards, codes, manuals, and specifications in effect on the date of advertisement for bids, which are referred to in the various sections herein.

PART 3 - EXECUTION

3.1 PROTECTION OF EQUIPMENT

A. General. All equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipment, handling, and storage. All equipment shall be protected from exposure to the elements and shall be kept thoroughly dry at all times.

B. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage. All painted surfaces which are damaged prior to acceptance of equipment shall be repainted to the satisfaction of the ENGINEER.

C. Electrical equipment, controls, and insulation shall be protected against dust, moisture, or water damage.

3.2 INSTALLATION

A. Installation of materials and equipment specified herein shall be performed in a workmanlike manner by mechanics skilled in their particular trade. Piping and equipment shall be installed square and plumb and accessible for proper operation and service. Installations shall be consistent in completeness and appearance whether enclosed or exposed. Any item which does not present a neat and workmanlike appearance shall be replaced without additional cost to OWNER.

3.3 ELECTRIC WIRING

A. The CONTRACTOR shall do all electric wiring of every type for both power supply and for instrumentation and control in accordance with the provisions specified herein, except for such items as are normally wired at their point of manufacture and so delivered, and unless specifically noted to the contrary herein. The CONTRACTOR shall erect all motors and shall mount all starters and controls, furnishing the supporting structures.

3.4 GUARANTEE

A. The CONTRACTOR shall guarantee all equipment against:
   1. Faulty or inadequate design.
   2. Improper assembly or erection.
   3. Defective workmanship or materials.
   4. Leakage, breakage, or other failure.
   5. The guarantee period shall be as defined in the General Conditions.

END OF SECTION

SECTION 01650

STARTING OF SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

A. Description:
   1. This Section contains requirements for CONTRACTOR'S performance in documenting testing work required under this Contract. In addition, this Section contains requirements for CONTRACTOR'S starting of systems, performance testing during startup, performance testing of all mechanical, electrical, instrumentation, HVAC equipment and systems, and training. This Section supplements, but does not supersede specific testing requirements, found elsewhere in the Contract Documents.

1.2 RELATED SECTIONS

A. Section 01300, Submittals.

1.3 SUBMITTALS

A. Descriptive submittals shall be made in accordance with Section 01300, Submittals. Submit for approval the following:
   1. A complete description of CONTRACTOR'S plan for documenting the results from the test program in conformance with the requirements of Paragraph 2.1.A., below, including:
      a. Proposed plan for documenting the calibration of all test instruments.
      b. Proposed plan for calibration of all instrument systems, including flow/level meters and all temperature, pressure, weight, and analysis systems.
      c. Sample forms for documenting the results of field pressure and performance tests.
   2. The credentials and certification of the testing laboratory proposed by CONTRACTOR for calibration of all test equipment.
   3. Pre-start-up check-out procedures reviewed and approved by the respective equipment manufacturers.
   4. Detailed testing plans, setting forth step-by-step descriptions of the procedures proposed by CONTRACTOR for the systematic startup and performance testing of all equipment and systems installed under this Contract.
   5. A schedule and subsequent updates, presenting CONTRACTOR'S plan for startup and performance testing the equipment and systems installed under this Contract.

6. A schedule establishing the expected time period (calendar dates) when CONTRACTOR plans to commence performance testing of the completed systems, along with a description of the temporary systems and installations planned to allow operational testing to take place.
7. All records produced during the startup and testing program.
8. Systems or unit process or any piece of equipment shall not be started up without the approved Operation and Maintenance Manuals being turned over to the OWNER.
9. Written notice to ENGINEER a minimum of 72 hours prior to beginning of any test.

B. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

PART 2 - PRODUCTS

2.1 DOCUMENTATION

A. Documentation Plans
   1. CONTRACTOR shall develop a records keeping system to document compliance with the requirements of this Section. Calibration documentation shall include identification (by make, manufacturer, model, and serial number) of all test equipment, date of original calibration, subsequent calibrations, calibration method, and test laboratory.
   2. Equipment and system documentation shall include date of test, equipment number or system name, nature of test, test objectives, test results, test instruments employed for the test and signature spaces for the OWNER'S and ENGINEER'S witnesses. A separate file shall be established for each system and item of equipment. These files shall include the following information as a minimum:

a. Metallurgical tests.
b. Factory performance tests.
c. Accelerometer recordings made during shipment.
d. Field calibration tests[1].
e. Field pressure tests[1].
f. Field performance tests[1].
g. Field operational tests[1].
([1] Each of these tests are required even though not specifically noted in detailed Specification Section.)

B. Test Plans:
1. CONTRACTOR shall develop test plans detailing the coordinated, sequential testing of each item of equipment and system installed under this Contract. Each test plan shall be specific to the item of equipment or system to be tested. Test plans shall identify by specific equipment or tag number each device or control station to be manipulated or observed during the test procedure and the specific results to be observed or obtained. Test plans shall also be specific as to support systems required to complete the test work, temporary systems required during the test work, subcontractors and manufacturers' representatives to be present and expected test duration. As a minimum, the test plans shall include the following features:
   a. Step-by-step proving procedure for all control and electrical circuits by imposing low voltage currents and using appropriate indicators to affirm that the circuit is properly identified and connected to the proper device.
   b. Calibration of all analysis instruments and control sensors.
   c. Performance testing of each individual item of mechanical, electrical, and instrumentation equipment. Performance tests shall be selected to duplicate the operating conditions described in the Contract Documents.
   d. System performance tests designed to duplicate, as closely as possible, operating conditions described in the Contract Documents.
2. Test plans shall contain a complete description of the procedures to be employed to achieve the desired test environment.
3. As a condition precedent to receiving progress payments in excess of 75% of the Contract amount, or in any event, progress payments due to CONTRACTOR eight weeks in advance of the proposed date the CONTRACTOR intends to begin any testing work (whichever occurs earliest in the Project Schedule), CONTRACTOR shall have submitted all test plans required for the systematic field performance and operational tests for all equipment and systems installed under this Contract. Once the ENGINEER has reviewed and approved CONTRACTOR'S test plans, CONTRACTOR shall reproduce the plans in sufficient number for CONTRACTOR'S purposes and an additional 10 copies for delivery to the ENGINEER. No test work shall begin until the CONTRACTOR has delivered the specified number of final test plans to the ENGINEER.

C. Testing Schedule: CONTRACTOR shall provide a startup and testing schedule setting forth the sequence contemplated for performing the test work. The schedule shall be a CPM format, plotted against calendar time, shall detail the equipment and systems to be tested, and shall be coordinated with CONTRACTOR'S Progress Schedule specified in Section 01310, Progress Schedule. The schedule shall show the contemplated start date, duration of the test and completion of each test. The test schedule shall be submitted no later than four weeks in advance of the date testing is to begin. The ENGINEER will not witness any testing work for the purpose of acceptance until CONTRACTOR has submitted a test schedule and the ENGINEER approves. The test schedule shall be updated weekly, showing actual dates of test work, indicating systems and equipment testing completed satisfactorily and meeting the requirements of the Contract Documents.

2.2 SYSTEM AND EQUIPMENT PERFORMANCE TESTS

A. Each item of mechanical, electrical, instrumentation and HVAC equipment installed under this Contract shall be tested to demonstrate compliance with the performance requirements of the Contract Documents. Each electrical, instrumentation, mechanical, piping, and HVAC system installed or modified under this Contract shall be tested in accordance with the requirements of this Section.

B. Once all equipment and systems have been tested individually, CONTRACTOR shall proceed with performance testing in accordance with the requirements of Paragraph 3.3, below, simulating actual operating conditions to the greatest extent possible. CONTRACTOR shall install temporary connections, bulkheads and make other provisions to re-circulate process fluids or otherwise simulate anticipated operating conditions. During the operational testing period, CONTRACTOR'S Quality Assurance Manager and testing team shall monitor the characteristics of each machine and system and report any unusual conditions to the ENGINEER.

PART 3 - EXECUTION

3.1 GENERAL

A. CONTRACTOR shall organize teams made up of qualified representatives of equipment suppliers, subcontractors, CONTRACTOR'S independent testing laboratory, and others, as appropriate, to efficiently and expeditiously calibrate and test the equipment and systems installed and constructed under this Contract. The objective of the testing program shall be to demonstrate, to the OWNER'S and ENGINEER'S complete satisfaction, that the structures, systems, and equipment constructed and installed under this Contract meets all performance requirements and the facility is Substantially Complete and ready for the commissioning process to commence. In addition, the testing program shall

produce baseline-operating conditions for the OWNER to use in a Preventive Maintenance Program. The Preventive Maintenance Program shall be provided as part of the vendor supplied equipment Operations and Maintenance Manual as required by Specification Section 01300 Submittals.

3.2 CALIBRATION OF FIXED INSTRUMENTS

A. Calibration of analysis instruments, sensors, gauges, and meters installed under this Contract shall proceed on a system-by-system basis. No equipment or system performance test shall be performed until all instruments, gauges, and meters to be installed in that particular system have been calibrated and the calibration work has been witnessed by the OWNER and ENGINEER.

3.3 PERFORMANCE TESTS

A. General: Performance tests shall consists of the following:
   1. Pressure or leakage tests.
   2. Electrical testing as specified in Division 16, Electrical.
   3. Wiring and piping, individual component, loop, loop commissioning and tuning testing, as specified in Division 17, Instrumentation.
   4. Pre-startup check out for all mechanical and HVAC equipment specified in Division 15, Mechanical. Pre-startup check out procedures shall be reviewed and accepted by the respective equipment manufacturer.
   5. Individual and system tests of all mechanical, electrical, HVAC, and instrumentation equipment and systems shall demonstrate compliance with the performance requirements of the Contract Documents.

B. Performance tests for any individual system shall be performed in the order listed above. The order may be altered only on the specific written authorization of the ENGINEER after receipt of a written request, complete with justification for the change in sequence.

C. Pressure and Leakage Tests: Pressure and leakage tests shall be conducted in accordance with applicable Sections. All acceptance tests shall be witnessed by the ENGINEER. Evidence of successful completion of the pressure and leakage tests shall be the ENGINEER'S signature on the test forms prepared by CONTRACTOR.

D. Equipment Checkout: Prior to energization (in the case of electrical systems and equipment), all circuits shall be rung out and tested for continuity and shielding in accordance with the requirements of Division 16, Electrical.

E. Component Calibration and Loop Testing: Prior to energization (in the case of instrumentation system and equipment), all loops and associated instruments shall be calibrated and tested, as specified in Division 17, Instrumentation.

F. Electrical Resistance: Electrical resistance testing shall be in accordance with the requirements of Division 16, Electrical.

G. Pre-Start-up Tests: Pre-start-up tests shall include the following
   1. Alignment of equipment using reverse dial indicator method.
   2. Pre-operation lubrication.
   3. Tests in accordance with the manufacturers' recommendations for pre-start preparation and pre-operational check out procedures.

3.4 DISINFECTION

A. CONTRACTOR shall disinfect all new portions of the plant that are located downstream of, and including, reclaimed water pump station, backwash piping, non-potable water system, potable water system, and reclaimed water system. Disinfection shall be completed prior to bringing the specific process or component on-line. All disinfection shall be done in accordance with AWWA C-653.

B. The CONTRACTOR shall provide all chemicals, materials, equipment, and utilities to perform the disinfection.

3.5 EQUIPMENT START-UP

A. The CONTRACTOR in the presence of OWNER and ENGINEER shall place the newly installed equipment and facilities into operation and test, observe, and adjust all items until the units are properly adjusted and operating in accordance with the requirements of the manufacturer's data and the Contract Documents. After the new equipment has been put into operation, CONTRACTOR, ENGINEER, and Plant Operator shall go over in detail the standard operating procedures of the equipment. The work performed by CONTRACTOR shall include, but not be limited to, the following items:
   1. Marking and numbering all valves, gates, and equipment which have been numbered in the Contract Documents. All valves and gates shall be labeled with the appropriate equipment identification tag as shown on the Drawings and specified in Section 10400, Equipment Identification Plates.
   2. Labeling switches.
   3. Testing of pumps and equipment for proper operation and verifying alignment and capacity.
   4. Checking all electrical, electronic, and remotely controlled equipment for proper operation as specified under Section 01400, Quality Control.
   5. Marking all new and existing exposed pipelines for identification as specified in Section 09900, Painting, and as labeled on the Drawings for pipe material, size, service, and direction of flow.
   6. Testing of unit processes for proper operations.
   7. Making all equipment adjustments required.

3.6 SUPERVISION OF INSTALLATION AND START-UP BY MANUFACTURER

A. An experienced, competent, and factory-employed representative of the equipment manufacturer shall visit the site of the work and inspect, check, adjust if necessary, and approve the equipment installation and shall be present when the equipment is placed in operation. The equipment manufacturer's representative shall revisit the job site as often as necessary until any trouble is corrected and the equipment installation and operation is satisfactory to the OWNER. The equipment manufacturer's representative shall furnish to OWNER a written report certifying that the equipment:
   1. Has been properly installed and lubricated.
   2. Is in accurate alignment.
   3. Is free from any undue stress imposed by connecting piping or anchor bolts.
   4. Has been operated under full load conditions and that it operated satisfactorily.

B. A resume of each factory personnel assigned to supervise installation and train OWNER'S personnel shall be submitted to the ENGINEER for approval prior to scheduling training and installing the equipment.

3.7 SYSTEM PERFORMANCE TESTS

A. General: Once all affected equipment has been subjected to the required pre-operational check out procedures and the ENGINEER has witnessed and has not found deficiencies in that portion of the Work, individual items of equipment and systems may be started and operated under simulated operating conditions to determine, as nearly as possible, whether the equipment and systems meet the requirements of these Specifications.

B. For each system performance test phase, the equipment shall be operated a sufficient period of time to determine machine operating characteristics, including noise, temperatures and vibration; to observe performance characteristics; and to permit initial adjustment of operating controls and shall last no less than seven continuous days. When testing requires the availability of auxiliary systems such as looped piping, electrical power, compressed air, control air, or instrumentation which have not yet been placed in service, CONTRACTOR shall provide acceptable substitute sources, capable of meeting the requirements of the machine, device, or system, at no additional cost to the OWNER. Disposal methods for test media shall be subject to review and approval by the OWNER and ENGINEER. During the performance test period, CONTRACTOR shall obtain baseline-operating data on all equipment with motors greater than one horsepower to include amperage, bearing temperatures, and vibration. The baseline data shall be collected for the OWNER to enter in a Preventive Maintenance Program.

C. Test results shall be within the tolerances set forth in the detailed Specification Sections of the Contract Documents. If no tolerances have been specified, test results shall conform to tolerances established by recognized industry practice. Where, in the case of an otherwise satisfactory performance test, any doubt, dispute, or difference should arise between the ENGINEER and CONTRACTOR regarding the test results or the methods or equipment used in the performance of such test, then the ENGINEER may order the test to be repeated. If the repeat test, using such modified methods or equipment as the ENGINEER may require, confirms the previous test, then all costs in connection with the repeat test will be paid by the OWNER. Otherwise, the costs shall be borne by CONTRACTOR. Where the results of any performance test fail to comply with the contract requirements for such test, then such repeat tests as may be necessary to achieve the contract requirements shall be made by CONTRACTOR at his expense.

D. CONTRACTOR shall provide, at no expense to the OWNER, all power, fuel, compressed air supplies, water, and chemicals, all labor, temporary piping, heating, ventilating, and air conditioning for any areas where permanent facilities are not complete and operable at the time of functional tests, and all other items and work required to complete the functional tests. Temporary facilities shall be maintained until permanent systems are in service.

E. Should the testing period be halted for any reason, the operational testing program shall be repeated, until the specified continuous period has been accomplished without interruption. All process units shall be brought to full operating conditions, including temperature, pressure, flow and level.

F. Record Documents shall conform to the requirements of Section 01300, Submittals, of facilities involved shall be accepted and ready for turnover to the OWNER 72 hours prior to operational testing.

G. Phase Retesting: If under test, any portion of the Work should fail to fulfill the Contract requirements and is adjusted, altered, renewed, or replaced, tests on that portion when so adjusted, altered, removed, or replaced, together with all other portions of the Work as are affected thereby, shall, unless otherwise directed by the ENGINEER, be repeated within reasonable time and in accordance with the specified conditions. CONTRACTOR shall pay to the OWNER all reasonable expenses incurred by the OWNER, including the costs of the ENGINEER, as a result of repeating such tests.

H. Post-Test Inspection: Once testing has been completed, all machines shall be rechecked for proper alignment and realigned, as required. All equipment shall be checked for loose connections, unusual movement, or other indications of improper operating characteristics. Any deficiencies shall be corrected to the satisfaction of the ENGINEER. All machines or devices which exhibit unusual or unacceptable operating characteristics shall be disassembled and inspected. Any defects found during the course of the inspection shall be repaired or the specific

part or entire equipment item shall be replaced to the complete satisfaction of the ENGINEER, at no additional cost to the OWNER.

3.8 TRAINING

A. The CONTRACTOR shall provide experienced, competent factory employed, trained, and certified manufacturers' employees to train OWNER'S personnel in operation and maintenance procedures for equipment items specified below during the start-up period at no additional cost to OWNER. The lesson plans for these sessions shall be reviewed with the OWNER and the ENGINEER in one meeting prior to initiating training. Lesson plans shall be submitted to the ENGINEER not less than one week prior to this meeting. CONTRACTOR will record the manufacturers' training sessions and provide OWNER with DVD format professional quality DVDs of the training sessions. The representatives shall present training programs and on-site demonstrations designed to fully acquaint plant personnel with all equipment features, routine scheduled maintenance procedures, alternative operational modes, emergency procedures, spare parts inventories, and demonstrate performance requirements of the specifications. Representatives shall remain on-site to observe operation of the equipment and further advise plant personnel for a minimum number of days as specified below, unless specified otherwise in Equipment Specifications. The following table is not a complete list of equipment training. See individual Specifications for additional training. Sales representatives shall not be acceptable to perform start-up and training functions.

Equipment	**Additional Training Days (Day = 8 hrs minimum)**
Disc Filter System	2 (1 day at each plant)
Hydraulic Gates	1 (½ day at each plant)
Actuators	1 (½ day at each plant)
Turbidity Instrument	1 (½ day at each plant)

B. A complete schedule of representatives and dates for operator training shall be submitted to OWNER prior to commencement of the start-up period. This schedule shall be prepared to accommodate the plant staff's work schedules, including training on all shifts and staffs' flex time.

END OF SECTION

SECTION 01660

FIELD TESTS OF EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION

A. In addition to testing required by this Section, CONTRACTOR shall perform all other tests required by detailed Equipment Specifications.

B. No system or subsystem shall be started up for continuous operation unless all components, including instrumentation and monitoring systems, of that system or subsystem has been tested and proven to be operable as intended by the Contract Documents.

1.2 PRELIMINARY TESTS

A. CONTRACTOR shall make preliminary field tests of all equipment as soon as conditions permit.

B. Purpose of tests is to determine if equipment is:
   1. Properly installed.
   2. In compliance with operating cycles.
   3. Operational and free from overheating, overloading, vibration, or other operating problems.

C. CONTRACTOR shall furnish all labor, materials, instruments, fuel, incidentals, and expendables required, unless otherwise provided.

D. CONTRACTOR shall make all changes, adjustments, and replacements required to place equipment in service and test it.

E. ENGINEER and OWNER shall be given sufficient notice prior to witness tests. A minimum 48 hour notice shall be given.

1.3 FINAL TESTS

A. To the maximum extent possible, CONTRACTOR shall perform final field tests of equipment prior to initial start-up and operation of the Project.

B. Purpose of the tests is to demonstrate that equipment is:
   1. Properly installed.
   2. Completely ready for operation by the OWNER.
   3. In compliance with design conditions, material specifications, and all other requirements of the Contract Documents.

C. CONTRACTOR shall furnish all fuel and energy, labor, materials, instruments, chemicals, lubricants, and expendables required for the tests, except where otherwise specified.

D. Until final field tests are completed and approved, CONTRACTOR shall make all necessary changes, adjustments, and replacements.

E. Systems or unit process, or any piece of equipment, shall not be started up without the approved Operation and Maintenance Manuals being turned over to the OWNER.

F. CONTRACTOR shall notify ENGINEER at least 48 hours prior to beginning of tests. CONTRACTOR shall keep notes and data on tests, and submit copy to the ENGINEER. ENGINEER and OWNER'S operating personnel shall witness all tests.

1.4 MANUFACTURERS' AND SUPPLIERS' FIELD AND TEST DATA

A. An experienced, competent, and authorized representative of the manufacturer or supplier of each item of equipment, as required in these Specifications, shall visit the site of the Work and inspect, check, and approve the equipment installation. In each case, the equipment supplier's representative shall be present when the equipment is placed in operation. The equipment supplier's representative shall revisit the job site as often as necessary until all trouble is corrected and the equipment installation and operation is satisfactory to the ENGINEER. Sales representatives shall not be acceptable to perform start-up and training functions.

B. Six copies of all test and field data collected by the manufacturers/suppliers of equipment during installation supervision and start-up services shall be submitted to the ENGINEER within 14 calendar days after the start-up services are complete. The test and field data shall be submitted, whether specified or not, in the detailed Equipment Specifications and shall include, but are not limited to, tolerance and alignment measurements where applicable to verify equipment has been satisfactorily installed, and all other information collected by the manufacturers/suppliers to satisfy themselves that equipment has been properly installed. The manufacturer shall submit to the ENGINEER a certification on the manufacturer's letterhead stating that the equipment has been properly installed and lubricated, is in accurate alignment, is free from any undue stress imposed by connecting piping or anchor bolts; and has been operated under full load conditions and it operated satisfactorily. In cases where the manufacturer/supplier's representative believes equipment is not properly installed he shall include with this submittal a punch list detailing the problems noted which require correction. The information required under this Section shall be furnished for all equipment and devices requiring installation and start-up services, as specified in these Specifications, including the detailed Mechanical, Electrical, and Instrumentation Specifications.

C. The costs for this Work shall be included in the prices quoted by equipment suppliers. CONTRACTOR shall perform all Work required to install and place into operation the equipment in accordance with the manufacturer's recommendations.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01730

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 DESCRIPTION

A. Provide Operation and Maintenance Data in the form of instructional manuals for use by the OWNER'S personnel for:
   1. All equipment and systems.
   2. All valves, pumps, and related accessories.
   3. All instruments and control devices.
   4. All electrical gear.

B. Training or start-up on any system, process, or piece of equipment shall not be allowed until Operation and Maintenance Manuals and Lesson Training Plans are approved by the ENGINEER, and the approved Operation and Maintenance Manuals have been turned over to the OWNER.

C. Definitions:
   1. Operation and Maintenance Data:
      a. The term "Operation and Maintenance Data" includes all product related information and documents which are required for preparation of the station Operation and Maintenance Manual. It also includes all data which shall accompany said manual as directed by current regulations of any participating government agency.
      b. Required Operation and Maintenance Data includes, but is not limited to, the following:
         1) Complete, detailed written operating instructions for each product or piece of equipment including equipment function; operating characteristics; limiting conditions; operating instructions for start up, normal, and emergency conditions; regulation and control; and shut down.
         2) Complete, detailed written preventive maintenance instructions as defined below.
         3) Recommended spare parts lists, by generic title and identification number, and local sources of supply for parts.
         4) Written explanations of all safety considerations relating to operation and maintenance procedures.
         5) Name, address, and phone number of manufacturer, manufacturer's local service representative, and subcontractor or installer.

6) Copy of all approved Shop Drawings, and a copy of the warranty bond and service contract as applicable, including circuit diagrams, schematics, and functional Drawings.
7) Control Diagrams: Internal and connection wiring, including logic diagrams, wiring diagrams for control panels, ladder logic for computer based systems, and connections between existing systems and new additions, and adjustments such as calibrations and set points for relays, and control or alarm contact settings. Provide all programming/wiring documentation needed for "in-house" troubleshooting and customizing.
8) Final test data, where applicable, shall be submitted as an appendix when completed.
9) Disassembly, reassembly, installation, alignment, adjustment, and checking instructions.

2. Preventive Maintenance Instructions:
   a. The term "Preventive Maintenance Instructions" includes all information and instructions required to keep a product or piece of equipment properly lubricated, adjusted, and maintained so that the item functions economically throughout its full design life.
   b. Preventive Maintenance Instructions include, but are not limited to, the following:
      1) A written explanation with illustrations for each preventive maintenance task.
      2) Recommended schedule for execution of preventive maintenance tasks.
      3) Lubrication charts.
      4) Table of alternative lubricants.
      5) Trouble shooting instructions.
      6) List of required maintenance tools and equipment.

D. Submittals:
   1. General: Submit operations and maintenance data to the ENGINEER within 60 days after approval of Shop Drawings, unless noted otherwise.
   2. Number of Copies: One hard copy of each item.
      a. One preliminary copy of each O&M Manual shall be submitted to the ENGINEER for approval within 30 days of the approval of the Shop Drawing, which indicated further submittals are not required. The O&M Manual shall conform to the requirements as specified herein.
      b. 60 days prior to placing the equipment into service, submit one hard copies and one soft copy of the approved O&M Manual (except for field test data) to the ENGINEER.
      c. Soft copy shall be in CD format and shall include all information provided in hard copy. Text shall be in ".pdf" format. Drawings and figures shall be in AutoCAD ".dwg", or bitmap ".bmp", tiff ".tif", ipeg ".jpg", gif ".gif", or pc paint brush ".pcx".

3. Letter of Transmittal: Provide a letter of transmittal with each submittal and include the following in the letter:
    a. Date of submittal.
    b. Contract title and number.
    c. CONTRACTOR'S name and address.
    d. A list of the attachments and the Specification Sections to which they relate.
    e. Reference to or explanation of related submittals already made or to be made at a future date.
4. Format Requirements:
    a. Use 8-1/2-inch by 11-inch paper of high rag content and quality. Larger Drawings or illustrations are acceptable if neatly folded to the specified size in a manner which will permit easy unfolding without removal from the binder. Provide reinforced punched binder tab, or provide flyleaf for each product.
    b. All text must be legible typewritten or machine printed originals or high quality copies of same.
    c. Each page shall have a binding margin of approximately 1-1/2-inches and be punched for placement in a 3-ring loose-leaf binder. Provide binders. Identify each binder with the following:
        1) Title "OPERATING AND MAINTENANCE INSTRUCTIONS".
        2) Title of Project.
        3) Identity of building or structure as applicable.
        4) Identity of general subject matter covered.
    d. Use divides and indexed tabs between major categories of information such as operating instructions, preventive maintenance instructions, or other. When necessary, place each major category in a separate binder.
    e. Provide a Table of Contents for each binder.
    f. Identify products by their functional names in the table of contents and at least once in each Chapter or Section. Thereafter, abbreviations and acronyms may be used if their meaning is explained in a table in the back of each binder. Use of model or catalog numbers or letters for identification is not acceptable.
    g. Upon completion of the installation of each item of equipment, the CONTRACTOR shall provide Drawings of the local control panel to be added to the O&M Manual.
    h. Indicate all components of the equipment on catalog pages by highlighting or some other clearly definable medium for ease of identification.
    i. Final test data determined after installation of the equipment shall be submitted as an appendix to the Operations and Maintenance Manuals.

E. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to

indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

F. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01750

SPARE PARTS AND MAINTENANCE MATERIALS

PART 1 - GENERAL

1.1 DESCRIPTION

A. 60 days after approval of the Shop Drawing of the equipment specified in the individual Sections, CONTRACTOR shall furnish spare parts data and maintenance material for equipment. The data shall include a complete list of parts and supplies, with current unit prices and source or sources of supply.

B. Spare parts and materials required to be supplied in the Contract Documents shall be furnished in manufacturer's unopened cartons, boxes, crates or other protective covering suitable for preventing corrosion or deterioration for the maximum length of storage that may be normally anticipated. They shall be clearly marked and identified as to the name of manufacturer or supplier, applicable equipment, part number, description and location in the equipment. All parts shall be protected and packaged for a shelf life of at least 10 years.

C. During construction, store parts in buildings or trailers with floor, roof, and closed sides and in accordance with manufacturers' recommendations. Protect from weather, condensation, and humidity.

D. Parts and materials shall be delivered to the OWNER upon Substantial Completion of the Work or start-up. CONTRACTOR shall then place them in permanent storage rooms or areas approved by the OWNER. The turnover procedures shall be developed by the ENGINEER.

E. Provide a Letter of Transmittal and Spare Parts Receiver Form including the following:
   1. Date of letter and transfer of parts and material.
   2. Contract title and number.
   3. CONTRACTOR'S name and address.
   4. Transmittal should list applicable Specification Sections for each set of spare parts supplied.
   5. Spare Parts Receiver Form.

F. CONTRACTOR shall be fully responsible for loss or damage to parts and materials until they are transmitted to the OWNER.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

(The remainder of this page left intentionally blank).

SPARE PARTS RECEIVER

SPECIFICATION SECTION 01750

CONTRACTOR PLEASE FILL OUT:

MANUFACTURER:_____

ITEM DESCRIPTION:_____

COST:_____

MANUFACTURER PART NUMBER:_____

SUPPLIER:_____

CROSS REFERENCE NUMBER:_____

VENDOR INFORMATION:_____

VENDOR ORDER PART NUMBER:_____

PART TO BE USED ON
WHAT EQUIPMENT:_____

_____

EQUIPMENT NUMBER:_____

SPECIFICATION SECTION:_____

CITY PERSONNEL FILL IN:

BIN NUMBER:_____

AIMS NUMBER:_____

LOCATION IN STORES:_____

RECEIVED BY:_____

END OF SECTION

SECTION 01821

INSTRUCTION OF OPERATIONS AND MAINTENANCE PERSONNEL

PART 1 - GENERAL

1.1 DESCRIPTION

A. CONTRACTOR shall provide the services of factory-trained maintenance specialists to instruct OWNER'S operations and maintenance personnel in the recommended operation and the preventive maintenance procedures for equipment specified in the equipment Sections.

B. The qualifications of specialists shall be subject to approval by ENGINEER.

C. CONTRACTOR shall coordinate these services at times acceptable to OWNER and ENGINEER, with a minimum of 14 days prior notice.

D. Manufacturer shall provide a combination of classroom and field training. All training shall be conducted at the facility, unless otherwise stated in the Equipment Sections. Class size shall be limited to no more than 15 trainees. Manufacturer shall provide training for all plant shifts, or as approved by OWNER.

E. Manufacturer shall allow any and all training sessions to be videotaped by OWNER.

F. Section 01640, Materials and Equipment; Section 01650, Starting of Systems; Section 01660, Field Tests of Equipment; and, additional requirements for manufacturer's and supplier's field and test data.

G. Instruction of OWNER'S personnel shall commence only after the equipment has been started, approved Operation and Maintenance Manuals have been turned over to the OWNER, and acceptance tests have been completed according to the provisions in Section 01650, Starting of Systems.

H. CONTRACTOR shall submit a copy of this Section 01821, Instruction of Operations and Maintenance Personnel, to all manufacturers of equipment for this Contract.

1.2 SUBMITTALS

A. Manufacturer shall submit for approval the following:
   1. Proposed Lesson Plan for each scheduled instruction 28 days prior to commencement of training. Lesson plans shall be approved a minimum of 14 days prior to scheduled instruction.

2. Credentials of their designated operations and maintenance instructor. Credentials shall include a brief resume and specific details of the instructor's experience pertaining to operation of, maintenance of, and training for the equipment specified.
3. Training Request Form: CONTRACTOR shall submit the Training Request Form to the ENGINEER 28 days prior to the requested training date.
4. There shall be separate "Operations" and "Maintenance" staff training.

1.3 INSTRUCTION LESSON PLAN

A. Manufacturer's proposed Lesson Plan shall include the elements presented in the outline of Instruction Lesson Plan in Paragraph 1.3.D., below, of this Section. Specific components and procedures shall be identified in the proposed Lesson Plan.

B. Manufacturer's proposed Lesson Plan shall detail specific instruction topics. Training aids to be utilized in the instruction shall be referenced and attached where applicable to the proposed Lesson Plan. "Hands-On" demonstrations planned for the instruction shall be described in the Lesson Plan.

C. The manufacturer shall indicate the estimated duration of each segment of the training Lesson Plan.

D. Instruction Lesson Plan shall include the following as a minimum:
   1. Equipment Operation:
      a. Describe equipment's operating (process) function.
      b. Describe equipment's fundamental operating principals and dynamics.
      c. Identify equipment's mechanical, electrical and electronic components and features.
      d. Identify all support equipment associated with the operation of subject equipment (e.g., air intake filters, valve actuators, motors).
      e. Recommend standard operating procedures to cover start-up, routine monitoring and shutdown of the equipment.
   2. Detailed Component Description:
      a. Identify and describe in detail each component's function.
      b. Where applicable, group related components into subsystems. Describe subsystem functions and their interaction with other subsystems.
      c. Identify and describe in detail equipment safeties and control interlocks.
   3. Equipment Preventive Maintenance (PM):
      a. Describe PM inspection procedures required to:
         1) Perform an inspection of the equipment in operation.
         2) Spot potential trouble symptoms and anticipate breakdowns.
         3) Forecast maintenance requirements (predictive maintenance).
      b. Define the recommended PM intervals for each component.
      c. Provide lubricant and replacement part recommendations and limitations.

d. Describe appropriate cleaning practices and recommend intervals.
e. Identify and describe the use of special tools required for maintenance of the equipment.
f. Describe component removal/installation and disassembly/assembly procedures.
g. Perform at least two "hands-on" demonstrations of preventive maintenance procedures.
h. Describe recommended measuring instruments and procedures, and provide instruction on interpreting alignment measurements, as appropriate.
i. Define recommended torquing, mounting, calibration and/or alignment procedures and settings, as appropriate.
j. Describe recommended procedures to check/test equipment following a corrective repair.

4. Equipment Troubleshooting:
   a. Define recommended systematic troubleshooting procedures.
   b. Provide component specific troubleshooting checklists.
   c. Describe applicable equipment testing and diagnostic procedures to facilitate troubleshooting.

1.4 TRAINING AIDS

A. The manufacturer's instructor shall incorporate training aids as appropriate to assist in the instruction. As a minimum, the training aids shall include text and figure handouts. Other appropriate training aids are:
   1. Audio-Visual Aids (e.g., films, slides, videotapes, overhead transparencies, posters, blueprints, diagrams, catalogue sheets).
   2. Equipment cutaways and samples (e.g., spare parts and damaged equipment).
   3. Tools (e.g., repair tools, customized tools, measuring and calibrating instruments).

B. The manufacturer's instructor shall utilize descriptive class handouts during the instruction. Photocopied class handouts shall be good quality reproductions. Class handouts should accompany the instruction with frequent reference made to them. Customized handouts developed especially for the instruction are encouraged. Handouts planned for the instruction shall be attached with the manufacturer's proposed Lesson Plan.

1.5 "HANDS-ON" DEMONSTRATIONS

A. The manufacturer's instructor shall present "hands-on" demonstrations of operations and maintenance of the equipment for each scheduled group. The proposed "hands-on" demonstrations should be described in the manufacturer's proposed Lesson Plan.

1.6 TRAINING SCHEDULE

A. Each manufacturer shall provide as a minimum the following hours of training. Travel time and expenses are responsibility of manufacturer and are not included in training schedule time.

B. The CONTRACTOR shall provide experienced, competent manufacturers' representatives to train OWNER'S personnel in operation and maintenance procedures for equipment items specified below during the start-up period at no additional cost to OWNER. The Lesson Plans for these sessions shall be reviewed with the OWNER and the ENGINEER in one meeting prior to initiating training. Lesson Plans shall be submitted to the ENGINEER not less than one week prior to this meeting. CONTRACTOR will video tape the manufacturers' training sessions and provide OWNER with DVD format professional quality discs of the training sessions. The representatives shall present training programs and on-site demonstrations designed to fully acquaint plant personnel with all equipment features, routine scheduled maintenance procedures, alternative operational modes, emergency procedures, spare parts inventories, and demonstrate performance requirements of the Specifications. Representatives shall remain on-site to observe operation of the equipment and further advise plant personnel for a minimum number of hours as specified below:

Equipment	**Additional Training Days (Day = 8 hrs minimum)**
Disc Filter System	2 (1 day at each plant)
Hydraulic Gates	1 (½ day at each plant)
Actuators	1 (½ day at each plant)
Turbidity Instrument	1 (½ day at each plant)

C. A complete schedule of representatives and dates for operator training shall be submitted to OWNER prior to commencement of the start-up period. This schedule shall be prepared to accommodate the plant staff's work schedules, including training on all three shifts and staff flex time.

D. The plant operators work on a shift schedule. Develop the training schedule to account for training classes for each shift.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

TRAINING REQUEST FORM
CITY OF CHANDLER
WRF IMPROVEMENTS PROJECT

SPECIFICATION SECTION 01821
INSTRUCTION OF OPERATIONS AND MAINTENANCE PERSONNEL

Equipment Name: _____

Equipment Tag Number: _____

Equipment Description: _____

Specification Section: _____

Operations and Maintenance Data Submitted/Approved: _____

Start-up and Testing Complete/Date: _____

Lesson Plan Submitted/Approved: _____

Training Aids Submitted/Approved: _____

Hands-on Demonstration: _____

Training Schedule (Dates, Time, No. of Sessions): _____

_____

_____

_____

_____

_____

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install cast-in-place concrete.
   2. The Work includes providing concrete consisting of Portland cement, fine and coarse aggregate, water, and approved admixtures; combined, mixed, transported, placed, finished, and cured. The Work also includes:
      a. Providing openings in concrete to accommodate the Work under this and other Sections and building into the concrete all items such as sleeves, frames, anchor bolts, inserts, and all other items to be embedded.

B. Coordination:
   1. Review installation procedures under other Sections and coordinate the installation of items that must be installed in the concrete.

C. Classes of Concrete:
   1. 6,000 psi (at 28 days) concrete shall be steel reinforced and shall be used for the Ocotillo Wastewater Reclamation Facility – Reservoir.
   2. 5,000 psi (at 28 days) concrete shall be steel reinforced and shall be used for the following pre-cast applications:
      a. Manholes and vaults.
   3. Class "A" (5,000 psi at 28 days) concrete shall be steel reinforced and shall be used for the following applications:
      a. All concrete, unless indicated otherwise.
   4. Class "B" concrete (3,000 psi at 28 days) shall be placed without forms or with simple forms, with little or no reinforcing, and includes the following:
      a. Duct banks.
      b. Unreinforced encasements.
      c. Curbs and gutters.
      d. Sidewalks.
      e. Thrust blocks.
   5. Class "C" (2,000 psi at 28 days) concrete shall be placed without forms or with simple forms, with little or no reinforcing.

D. Related Sections:
   1. Section 02315, Earthwork, Excavation, and Backfill.
   2. Section 03100, Concrete Formwork.
   3. Section 03200, Concrete Reinforcement.

4. Section 03251, Concrete Joints.

1.2 QUALITY ASSURANCE

A. Reference Standards: Comply with the applicable provisions and recommendations of the following, except as otherwise shown or specified.
   1. ACI 211.1, Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.
   2. ACI 214, Recommended Practice for Evaluation of Strength Test Results of Concrete.
   3. ACI 301, Specifications for Structural Concrete for Buildings, (includes ASTM Standards referred to herein).
   4. ACI 304, Guide for Measuring, Mixing, Transporting, and Placing Concrete.
   5. ACI 305, Hot Weather Concreting.
   6. ACI 309, Guide for Consolidation of Concrete.
   7. ACI 311, Guide for Concrete Inspection.
   8. ACI 318, Building Code Requirements for Reinforced Concrete.
   9. ACI 350R, Environmental Engineering Concrete Structures.
   10. AASHTO M182, Burlap Cloth Made From Jute or Kenaf.

B. Concrete Testing Service:
   1. CONTRACTOR shall employ, at his own expense, a testing laboratory experienced in design and testing of concrete materials and mixes to perform material evaluation tests and to design concrete mixes.
      a. Testing agency shall meet the requirements of ASTM E329.
      b. Selection of a testing laboratory is subject to ENGINEER'S approval.
      c. Submit a written description of the proposed concrete testing laboratory giving qualifications of personnel, laboratory facilities and equipment, and other information which may be requested by ENGINEER.
   2. Materials and installed Work may require testing and retesting, as directed by ENGINEER, at any time during the progress of the Work. Allow free access to material stockpiles and facilities at all times. Tests not specifically indicated to be done at OWNER'S expense, including the retesting of rejected materials and installed Work, shall be done at CONTRACTOR'S expense.

C. Qualifications of Water-Reducing Admixture Manufacturer:
   1. Water-reducing admixtures shall be manufactured under strict quality control in facilities operated under a quality assurance program. CONTRACTOR shall furnish copy of manufacturer's quality assurance handbook to document the existence of the program. Manufacturer shall maintain a concrete testing laboratory which has been approved by the Cement and Concrete Reference Laboratory at the Bureau of Standards, Washington, D.C.
   2. Provide a qualified concrete technician employed by the admixture manufacturer to assist in proportioning the concrete for optimum use of the admixture. The concrete technician shall advise on proper addition of the admixture to the concrete and on adjustment of the concrete mix proportions to meet changing job site conditions.

D. Tests for Concrete Materials:
   1. Submit written reports to ENGINEER, for each material sampled and tested, prior to the start of Work.
   2. Provide the Project identification name and number, date of report, name of CONTRACTOR, name of concrete testing service, source of concrete aggregates, material manufacturer and brand name for manufactured materials, values specified in the referenced specification for each material, and test results. Indicate whether or not material is acceptable for intended use.

1.3 SUBMITTALS

A. Samples: Submit samples of materials as specified and as otherwise may be requested by ENGINEER, including names, sources, and descriptions.

B. Shop Drawings: Submit for approval the following:
   1. Manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures and bonding agents.
   2. List of concrete materials and concrete mix designs proposed for use. Include the results of all tests performed to qualify the materials and to establish the mix designs.
   3. The following information, if ready-mixed concrete is used.
      a. Physical capacity of mixing plant.
      b. Trucking facilities available.
      c. Estimated average amount which can be produced and delivered to the site during a normal eight hour day, excluding the output to other customers.

C. Laboratory Test Reports: Submit copies of laboratory test reports for concrete cylinders, materials and mix design tests. ENGINEER'S review will be for general information only. Production of concrete to comply with specified requirements is the responsibility of CONTRACTOR.

D. Submit notarized certification of conformance to referenced standards when requested by ENGINEER.

E. Delivery Tickets: Furnish to ENGINEER copies of all delivery tickets for each load of concrete delivered to the site. Provide items of information as specified in ASTM C94, Section 16.
   1. Provide batch tickets for each batch of job site mixed concrete, as specified.

F. The CONTRACTOR shall submit Portland cement submittals to the ENGINEER by a well known manufacturer and supplied by one plant.

G. CONTRACTOR may provide Portland cement from a second plant to be used in emergency situations only. CONTRACTOR must provide second submittal within 30 days of receipt of first submittal.

H. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

I. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

1.4 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. All materials used for concrete must be kept clean and free from all foreign matter during transportation and handling and kept separate until measured and placed in the mixer. Bins or platforms having hard clean surfaces shall be provided for storage. Suitable means shall be taken during hauling, piling, and handling to insure that segregation of the coarse and fine aggregate particles does not occur and the grading is not affected.

1.5 CONCRETE COORDINATION MEETING

A. Concrete Coordination Meeting shall be held to review the detailed requirements of CONTRACTOR'S proposed concrete design mixes, to determine the procedures for producing proper concrete construction, and to clarify the roles of the parties involved shall be held no later than 14 days after the Notice to Proceed.

B. All parties involved in the concrete Work shall attend the conference, including but not limited to the following:
   1. CONTRACTOR'S representative.
   2. Testing laboratory representative.
   3. Concrete subcontractor.
   4. Reinforcing steel subcontractor and detailer.
   5. Concrete supplier.

6. Admixture manufacturer's representative.
7. ENGINEER.

C. The Concrete Coordination Meeting shall be held at a mutually agreed upon time and place. The ENGINEER shall be notified no less than five days prior to the date of the Concrete Coordination Meeting.

PART 2 - PRODUCTS

2.1 CONCRETE MATERIALS

A. Cement:
1. Portland cement, ASTM C150, Type II.
2. Use Portland cement made by a well-known acceptable manufacturer and produced by not more than one plant.
3. Do not use cement which has deteriorated because of improper storage or handling.

B. Aggregates: ASTM C33 and as herein specified.
1. Do not use aggregates containing soluble salts or other substances such as iron sulfides, pyrite, marcasite, ochre, or other materials that can cause stains on exposed concrete surfaces.
2. Fine Aggregate: Clean, sharp, natural sand free from loam, clay, lumps, or other deleterious substances.
   a. Dune sand, bank run sand, and manufactured sand are not acceptable.
3. Coarse Aggregate: Clean, uncoated, processed aggregate containing no clay, mud, loam, or foreign matter as follows:
   a. Crushed stone, processed from natural rock or stone.
   b. Washed gravel, either natural or crushed. Use of slag and pit or bank run gravel is not permitted.
   c. Coarse Aggregate Size: Size to be ASTM C33, Nos. 57 or 67, except that No. 467 may be used for footings, foundation mats, and walls 16-inches or greater in thickness.

C. Water: Clean, free from injurious amounts of oils, acids, alkalis, organic materials, or other substances that may be deleterious to concrete or steel.

2.2 CONCRETE ADMIXTURES

A. Provide admixtures produced by established reputable manufacturers and use in compliance with the manufacturer's printed instruction. Do not use admixtures which have not been incorporated and tested in the accepted mixes, unless otherwise authorized in writing by ENGINEER.

B. Air-Entraining Admixtures: ASTM C 260.
1. Product and Manufacturer: Provide one of the following:
   a. SIKA AER or SIKA AEA-15, as manufactured by Sika Corporation.

b. MB-VR, as manufactured by Master Builders, Inc.
c. Daravair, as manufactured by W.R. Grace & Company.
d. Or approved equal.

C. Water-Reducing Admixture: ASTM C494, Type A.
1. Proportion all Class "A" and Class "B" concrete with non-air entraining, normal setting, water-reducing, aqueous solution of a modification of the salt of polyhydroxylated organic acids. The admixture shall not contain any lignin, nitrates, or chlorides added during manufacture.
2. Product and Manufacturer: Provide one of the following:
a. Eucon WR-75, as manufactured by The Euclid Chemical Company.
b. Pozzolith, as manufactured by Master Builders, Inc.
c. WRDA-15, as manufactured by W.R. Grace & Conn.
d. Or approved equal.

D. Pozzolanic Admixtures:
1. Mineral admixtures, when used, shall meet the requirements of ASTM C618, Class F, except as follows:
a. The loss on ignition shall be a maximum of 4%.
b. The maximum percent of sulfur trioxide (SO3) shall be 4.0.
2. A substitution by weight, of the Portland cement, by pozzolan, so that the total tricalcium aluminate content of the resulting cement plus pozzolan is not greater than 8%, will be considered. However, the pozzolan shall not exceed 20% by weight of the cement, plus pozzolan.

E. Set-Control Admixtures: ASTM C494, as follows:
1. Type B, Retarding.
2. Type C, Accelerating.
3. Type D, Water-reducing and Retarding.
4. Type E, Water-reducing and Accelerating.

F. Calcium Chloride: Do not use calcium chloride in concrete, unless otherwise authorized in writing by ENGINEER. Do not use admixtures containing calcium chloride where concrete is placed against galvanized steel.

2.3 PROPORTIONING AND DESIGN OF MIXES

A. Prepare concrete design mixes subject to the following limitations:

Class	Coarse Aggregate[1] Size A	Size B	Minimum Cementitious (lbs/cu yd)	Maximum W/C	Slump[2]	Air %	Min. Comp Strength[3] (psi)
6000 psi	#57 or #67		846	0.40	4" Max.		6000
5000 psi	#57 or #67		705	0.40	4" Max.	3 max	5000
Class "A"	#57 or #67		564	0.45	4" Max.	4+/-1	4000
Class "B"	#57 or #67		517	0.55	4" Max.	4+/-1	3000
Class "C"	Any ASTM C33		← No requirements →				2000

1. Coarse aggregate size numbers refer to ASTM C33. Where a size A and B are listed, it is intended that the smaller size B aggregate is to be added, replacing a portion of the coarse and /or fine aggregate, in the minimum amount necessary to make a workable and pumpable mix with a sand content not exceeding 41% of total aggregate.
2. The slumps listed are prior to the addition of high range water reducer (super plasticizer).
3. Mix designs shall be made for all but Class "C", which does not require a trial batch, so that the compressive strength achieved for the laboratory trial batches will be no less than 125% of the specified design strength. This is to assure meeting the design strength for all concrete batched during the Project.
4. The quantity of water to be used in the determination of the water-cementitious materials ratio shall include free water on aggregates in excess of SSD and the water portion of admixtures.

B. Use an independent testing facility acceptable to ENGINEER for preparing and reporting proposed mix designs.
   1. The testing facility shall not be the same as used for field quality control testing.

C. Proportion mixes by either laboratory trial batch or field experience methods, using materials to be employed on the Project for concrete required. Comply with ACI 211.1 and report to ENGINEER the following data:
   1. Complete identification of aggregate source of supply.
   2. Tests of aggregates for compliance with specified requirements.
   3. Scale weight of each aggregate.
   4. Absorbed water in each aggregate.
   5. Brand, type, and composition of cement.
   6. Brand, type, and amount of each admixture.
   7. Amounts of water used in trial mixes.
   8. Proportions of each material per cubic yard.
   9. Gross weight and yield per cubic yard of trial mixtures.
   10. Measured slump.
   11. Compressive strength developed at 7 days and 28 days, from not less than three test cylinders cast for each 7 day and 28 day test, and for each design mix.

D. Submit written reports to ENGINEER of proposed mix of concrete at least 15 days prior to start of Work.

E. Laboratory Trial Batches: When laboratory trial batches are used to select concrete proportions, prepare test specimens and conduct strength tests as specified in ACI 301, Section 4 - Proportioning.

F. Field Experience Method: When field experience methods are used to select concrete proportions, establish proportions as specified in ACI 301, Section 4.

G. Adjustment to Concrete Mixes: Mix design adjustments may be requested by CONTRACTOR when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to the OWNER and as accepted by ENGINEER. Laboratory test data for revised mix designs and strength results must be submitted to and accepted by ENGINEER before using the revised mixes.

H. Admixtures:
   1. Use amounts of admixtures as recommended by the manufacturer for climatic conditions prevailing at the time of placing. Adjust quantities and types of admixtures as required to maintain quality control.

I. Slump Limits:
   1. A slump of up to 5-inches will be allowed for Class "C" concrete. See the General Structural Notes in the Drawings for allowable slumps for other mixes.
   2. Slump tolerances for all concrete shall meet the requirements of ACI 301 and ACI 117.

J. Red Dye:
   1. Add red dye to all concrete used for electrical duct bank encasement.

2.4 EPOXY BONDING AGENT

A. Provide an epoxy-resin bonding agent, two-component type.

B. Product and Manufacturer: Provide one of the following:
   1. Sikadur 32 Hi-Mod LPL, as manufactured by Sika Corporation.
   2. Eucopoxy LPL, as manufactured by the Euclid Chemical Company.
   3. Or approved equal.

2.5 CONCRETE CURING MATERIALS

A. Absorptive Cover: Burlap cloth made from jute or kenaf, weighing approximately 10 ounces per square yard and complying with AASHTO M182, Class 3.

B. Moisture-Retaining Cover: Comply with ASTM C171.
   1. Transguard 4000 or approved equal.

C. Curing Compound: ASTM C309 Type 1-D (water retention requirements):
   1. Product and Manufacturer: Provide one of the following:
   2. Super Aqua Cure VOX, as manufactured by The Euclid Chemical Company.
   3. Sealtight 1100, as manufactured by W.R. Meadows, Incorporated.
   4. MasterKure, as manufactured by Master Builders, Inc.

5. Or approved equal.
6. Provide fugitive dye when requested by ENGINEER.

2.6 EMBEDDED ITEMS

A. Items such as plates, angles, inserts, bolts, and similar items not specified elsewhere shall be provided and installed under this Section. All embedded items shall be hot-dip galvanized after fabrication. After galvanizing, coat with zinc chromate paint. Stainless steel items shall not be galvanized.

2.7 CRACK INJECTION MATERIALS

A. Epoxy:
   1. Epoxy for injection shall be a low viscosity, high modulus moisture insensitive type.
   2. Products and Manufacturers: Provide one of the following:
      a. Sikadur 35, Hi-Mod L.V. and Sikadur 31, Hi-Mod Gel, as manufactured by Sika Corporation.
      b. Eucopoxy Injection Resin, as manufactured by The Euclid Chemical Company.
      c. Or approved equal.

PART 3 - EXECUTION

3.1 INSPECTION

A. CONTRACTOR and his installer shall examine the substrate and the conditions under which Work is to be performed and notify ENGINEER in writing of unsatisfactory conditions. Do not proceed with the Work until unsatisfactory conditions have been corrected in a manner acceptable to ENGINEER.

3.2 CONCRETE MIXING

A. General:
   1. Concrete may be produced at batch plants or it may be produced by the ready-mixed process. Batch plants shall comply with the recommendations of ACI 304 and shall have sufficient capacity to produce concrete of the qualities specified, in quantities required to meet the construction schedule. All plant facilities are subject to testing laboratory inspection and acceptance of ENGINEER.
   2. Mixing:
      a. Mix concrete with an approved rotating type batch machine, except where hand mixing of very small quantities may be permitted.
      b. Remove hardened accumulations of cement and concrete frequently from drum and blades to assure acceptable mixing action.
      c. Replace mixer blades when they have lost 10% of their original height.

d. Use quantities such that a whole number of bags of cement is required, unless otherwise permitted.

3. Job Site Mixing: Is not permitted.

B. Ready-Mix Concrete:

1. Comply with the requirements of ASTM C94 and as herein specified. Proposed changes in mixing procedures, other than herein specified, must be accepted by ENGINEER before implementation.
   a. Plant Equipment and Facilities: Conform to National Ready-Mix Concrete Association "Plant and Delivery Equipment Specification".
   b. Mix concrete in revolving type truck mixers which are in good condition and which produce thoroughly mixed concrete of the specified consistency and strength.
   c. Do not exceed the proper capacity of the mixer.
   d. Mix concrete for a minimum of two minutes after arrival at the job site or as recommended by the mixer manufacturer.
   e. Mix at proper speed until concrete is discharged.
   f. Maintain adequate facilities at the job site for continuous delivery of concrete at the required rates.
   g. Provide access to the mixing plant for ENGINEER at all times.
2. Provide a batch ticket for each batch discharged and used in the Work, indicating the Project identification name and number, date, mix type, mix time, quantity, and amount of water introduced.

C. Maintain equipment in proper operating condition, with drums cleaned before charging each batch. Schedule rates of delivery in order to prevent delay of placing the concrete after mixing, or holding dry-mixed materials too long in the mixer before the addition of water and admixtures.

3.3 TRANSPORTING CONCRETE

A. Transport and place concrete not more than 90 minutes after water has been added to the dry ingredients.

B. Take care to avoid spilling and separation of the mixture during transportation.

C. Do not place concrete in which the ingredients have been separated.

D. Do not retemper partially set concrete.

E. Use suitable and approved equipment for transporting concrete from mixer to forms.

3.4 CONCRETE PLACEMENT

A. General: Place concrete continuously so that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness within the section. If a section cannot be placed continuously,

provide construction joints as specified in Section 3.4.E of these Specifications only as approved by ENGINEER. Deposit concrete as nearly as practical in its final location to avoid segregation due to rehandling or flowing. Do not subject concrete to any procedure which will cause segregation.

1. Screed concrete which is to receive other construction to the proper level to avoid excessive skimming or grouting.
2. Do not use concrete which becomes non-plastic and unworkable, or does not meet the required quality control limits, or which has been contaminated by foreign materials. Do not use retempered concrete. Remove rejected concrete from the job site and dispose of it in an acceptable location.
3. Do not place concrete until all forms, bracing, reinforcement, and embedded items are in final and secure position.
4. Unless otherwise approved, place concrete only when ENGINEER is present.
5. Allow a minimum of 48 hours before placing concrete against a slab or wall already in place.

B. Concrete Conveying:
   1. Handle concrete from the point of delivery and transfer to the concrete conveying equipment and to the locations of final deposit as rapidly as practical by methods which will prevent segregation and loss of concrete mix materials.
   2. Provide mechanical equipment for conveying concrete to ensure a continuous flow of concrete at the delivery end. Provide runways for wheeled concrete conveying equipment from the concrete delivery point to the locations of final deposit. Keep interior surfaces of conveying equipment, including chutes, free of hardened concrete, debris, water, snow, ice, and other deleterious materials.
   3. Do not use chutes for distributing concrete unless approved in writing by ENGINEER.
      a. Provide sketches showing methods by which chutes will be employed when requesting such approval.
      b. Design chutes, if permitted, with proper slopes and supports to permit efficient handling of the concrete.
   4. Pumping concrete is permitted, however do not use aluminum pipe for conveying.

C. Placing Concrete into Forms:
   1. Deposit concrete in forms in horizontal layers not deeper than 18-inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place concrete at such a rate that concrete which is being integrated with fresh concrete is still plastic.
   2. Do not permit concrete to free-fall within the form from a distance exceeding 6 feet. Use "elephant trunks" to prevent free fall and excessive splashing on forms and reinforcement.
   3. Remove temporary spreaders in forms when concrete placing has reached the elevation of such spreaders.

4. Consolidate concrete placed in forms by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with the applicable recommended practices of ACI 309. Vibration of forms and reinforcing will not be permitted, unless otherwise accepted by ENGINEER.
5. Do not use vibrators to transport concrete inside of forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than the visible effectiveness of the machine. Place vibrators to rapidly penetrate the layer of concrete and at least 6-inches into the preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion, limit the duration of vibration to the time necessary to consolidate the concrete and complete embedment of reinforcement and other embedded items without causing segregation of the mix.
6. Do not place concrete in beam and slab forms until the concrete previously placed in columns and walls is no longer plastic.
7. Force concrete under pipes, sleeves, openings, and inserts from one side until visible from the other side to prevent voids.

D. Placing Concrete Slabs:
1. Deposit and consolidate concrete slabs in a continuous operation, within the limits of construction joints, until the placing of a panel or section is completed.
2. Consolidate concrete during placing operations using mechanical vibrating equipment, so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.
3. Consolidate concrete placed in beams and girders of supported slabs, and against bulkheads of slabs on ground, as specified for formed concrete structures.
4. Bring slab surfaces to the correct level. Smooth the surface, leaving it free of humps or hollows. Do not sprinkle water on the plastic surface. Do not disturb the slab surfaces prior to beginning finishing operations.

E. Bonding for Next Concrete Pour: Roughen surfaces of set concrete at all joints, except where bonding is obtained by use of a concrete bonding agent. Construction joints shown on the Drawings are specified in Section 03251, Concrete Joints, of these Specifications. Clean surfaces of laitance, coatings, loose particles, and foreign matter. Roughen surfaces in a manner to expose bonded aggregate uniformly and to not leave laitance, loose particles of aggregate, or damaged concrete at the surface.
1. Prepare for bonding of fresh concrete to new concrete that has set but is not fully cured, as follows:
    a. Thoroughly wet the surface but allow no freestanding water.
    b. For horizontal surfaces, place a 2-inch layer of mortar, one part sand and one part cement with water, over the hardened concrete surface.
    c. Place fresh concrete before the mortar has attained its initial set.
2. Bonding of fresh concrete to fully-cured hardened concrete or existing concrete and horizontal surfaces which will receive a topping shall be

accomplished by using an epoxy-resin bonding agent as specified in Section 03251, Concrete Joints, of these Specifications.

F. Quality of Concrete Work:
   1. Make all concrete solid, compact and smooth, and free of laitance, cracks, and cold joints.
   2. All concrete for liquid retaining structures, and all concrete in contact with earth, water, or exposed directly to the elements shall be watertight.
   3. Cut out and properly replace to the extent ordered by ENGINEER, or repair to the satisfaction of ENGINEER, surfaces which contain cracks or voids, are unduly rough, or are in any way defective. Thin patches or plastering will not be acceptable.
   4. All leaks through concrete and cracks, holes, or other defective concrete in areas of potential leakage, shall be repaired and made watertight by CONTRACTOR.
   5. Repair, removal, and replacement of defective concrete as ordered by ENGINEER shall be at no additional cost to OWNER.

G. Hot Weather Placing:
   1. When hot weather conditions exist that would seriously impair the quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.
   2. Cool ingredients before mixing to maintain concrete temperature at time of placement below 80° F when the temperature is rising and below 85° F when the temperature is falling. Mixing water may be chilled or chopped ice or liquid nitrogen may be used to control the concrete temperature provided the water equivalent of the ice is calculated in the total amount of mixing water.
   3. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that the steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.
   4. Wet forms thoroughly before placing concrete.
   5. Do not place concrete at a temperature so as to cause difficulty from loss of slump, flash set, or cold joints.
   6. Do not use set-control admixtures unless approved by ENGINEER in mix designs.
   7. Obtain ENGINEER'S approval of other methods and materials proposed for use.

3.5 FINISH OF FORMED SURFACES

A. Rough Form Finish:
   1. Standard rough form finish shall be the concrete surface having the texture imparted by the form material used, with tie holes and defective areas repaired and patched with mortar of one part cement to 1-1/2 parts sand and all fins and other projections exceeding 1/4-inch in height rubbed down or chipped off.
   2. Use rough form finish for the following:

a. Exterior vertical surfaces up to 1 foot below grade.
b. Interior exposed vertical surfaces of liquid containers up to 1 foot below liquid level.
c. Interior and exterior exposed beams and undersides of slabs.
d. Other areas shown.

B. Smooth Form Finish:
1. Produce smooth form finish by selecting form materials which will impart a smooth, hard, uniform texture. Arrange panels in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas as above with all fins or other projections completely removed and smoothed.
2. Use smooth form finish for surfaces that are to be covered with a coating material. The material may be applied directly to the concrete or may be a covering bonded to the concrete such as waterproofing, damp proofing, painting or other similar system.

C. Smooth Rubbed Finish:
1. Provide smooth rubbed finish to concrete surfaces which have received smooth form finish as follows:
a. Rubbing of concrete surfaces not later than the day after form removal.
b. Moistening of concrete surfaces and rubbing with carborundum brick or other abrasive until a uniform color and texture is produced. Do not apply cement grout other than that created by the rubbing process.
2. Except where surfaces have been previously covered as specified above, use smooth rubbed finish as follows:
a. Repair all defects and patch all tie holes prior to rubbed finish.
b. Grind all form finish and joint lines, smooth. Remove all curing compound and form oil.
c. Combine one part Portland cement to 1-1/2 parts fine sand by volume and mix with water to a consistency of thick paint. Blend standard Portland cement with white Portland cement in amounts determined by trial patches. Final color of dried grout to match color of adjacent concrete surfaces.
d. Thoroughly wet concrete surface with bonding agent and water mix. Apply grout uniformly by rubber or cork float. Fill all surface holes. Remove excess grout by rubbing with clean wet burlap to remove any visible grout film.
e. Provide sample panel for approval, prior to start of Work.

D. Related Unformed Surfaces:
1. At tops of walls, horizontal offsets, and similar unformed surfaces occurring adjacent to formed surfaces, strike off smooth and finish with a texture matching the adjacent formed surfaces. Continue the final surface treatment of formed surfaces uniformly across the adjacent unformed surfaces, unless otherwise shown.

3.6 MONOLITHIC SLAB FINISHES

A. Float Finish:
   1. After placing concrete slabs, do not work the surface further until ready for floating. Begin floating when the surface water has disappeared or when the concrete has stiffened sufficiently. Check and level the surface plane to a tolerance not exceeding 1/4-inch in 10 feet when tested with a 10 foot straightedge placed on the surface at not less than two different angles. Cut down high spots and fill all low spots. Uniformly slope surfaces to drains. Immediately after leveling, refloat the surface to a uniform, smooth, granular texture.
   2. Use float finish for the following:
      a. Interior exposed horizontal surfaces of liquid containers, except those to receive grout topping.
      b. Exterior below grade horizontal surfaces.
      c. Surfaces to receive additional finishes, except as shown or specified.

B. Trowel Finish:
   1. After floating, begin the first trowel finish operation using a power-driven trowel. Begin final troweling when the surface produces a ringing sound as the trowel is moved over the surface.
   2. Consolidate the concrete surface by the final hand troweling operation. Finish shall be free of trowel marks, uniform in texture and appearance, and with a surface plane tolerance not exceeding 1/8-inch in 10 feet when tested with a 10 foot straightedge. Grind smooth surface defects that would telegraph through applied floor covering system.
   3. Use trowel finish for the following:
      a. Interior exposed slabs unless otherwise shown or specified.
      b. Slabs to receive resilient floor finishes.

C. Non-Slip Broom Finish:
   1. Immediately after float finishing, slightly roughen the concrete surface by brooming in the direction perpendicular to the main traffic route. Use fiber bristle broom unless otherwise directed. Coordinate the required final finish with ENGINEER before application.
   2. Use non-slip broom finish for the following:
      a. Exterior exposed horizontal surfaces subject to light foot traffic.
      b. Interior and exterior concrete steps and ramps.
      c. Horizontal surfaces which will receive a grout topping or a concrete equipment base slab.

3.7 CONCRETE CURING AND PROTECTION

A. General:
   1. Protect freshly placed concrete from premature drying and excessive cold or hot temperature, and maintain without drying at a relatively constant

temperature for the period of time necessary for hydration of the cement and proper hardening of the concrete.

2. Start initial curing after placing and finishing concrete as soon as free moisture has disappeared from the concrete surface. Keep continuously moist for not less than 72 hours.
3. Begin final curing procedures immediately following initial curing and before the concrete has dried. Continue final curing for at least seven days and in accordance with ACI 301 procedures. For concrete sections over 30-inches thick, continue final curing for an additional seven days, minimum. Avoid rapid drying at the end of the final curing period.

B. Final Curing Methods:
   1. Perform curing of concrete by moist curing, or by moisture-retaining cover curing, or curing compound.
      a. For curing, use water that is free of impurities which could etch or discolor exposed, natural concrete surfaces.
   2. Provide moisture curing by any of the following methods:
      a. Keeping the surface of the concrete continuously wet by covering with water.
      b. Continuous water-fog spray.
      c. Covering the concrete surface with the specified absorptive cover, thoroughly saturating the cover with water, and keeping the absorptive cover continuously wet with sprinklers or porous hoses. Cover shall be Transguard 4000 or approved equal.
      d. Place absorptive cover so as to provide coverage of the concrete surfaces and edges, with a 4-inch lap over adjacent absorptive covers.
   3. Provide moisture retaining cover curing as follows:
      a. Cover the concrete surfaces with the specified moisture retaining cover for curing concrete, placed in the widest practical width with sides and ends lapped at least 3-inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during the curing period using cover material and waterproof tape.
   4. Provide liquid curing compound as follows:
      a. Apply the specified curing compound to all concrete surfaces when permitted by ENGINEER. Slabs to receive terrazzo floors, chemical resistant heavy-duty concrete topping or ceramic tile, shall not be cured with liquid curing compound, but shall be moisture cured. The compounds shall be applied immediately after final finishing in a continuous operation by power spray equipment in accordance with the manufacturer's directions. Recoat areas which are subjected to heavy rainfall within three hours after initial application. Maintain the continuity of the coating and repair damage to the coat during the entire curing period. For concrete surfaces which will be in contact with raw or potable water, the manufacturer shall certify that the curing compound used is EPA approved.

C. Curing Formed Surfaces:

1. Cure formed concrete surfaces, including the undersides of girders, beams, supported slabs, and other similar surfaces with the forms in place for the full curing period. If forms are removed earlier, continue curing by methods specified above, as applicable.

D. Curing Unformed Surfaces:
   1. Final cure unformed surfaces, such as slabs, floor topping, and other flat surfaces by using the appropriate method specified above.

E. Temperature of Concrete During Curing:
   1. When the atmospheric temperature is 40° F and below, maintain the concrete temperature between 50° F and 70° F continuously throughout the curing period. When necessary, make arrangement before concrete placing for heating, covering, insulation or housing as required to maintain the specified temperature and moisture conditions continuously for the concrete curing period. Provide cold weather protection complying with the requirements of ACI 306.
   2. When the atmospheric temperature is 80° F and above, or during other climatic conditions which will cause too rapid drying of the concrete, make arrangements before the start of concrete placing for the installation of wind breaks or shading, and for fog spraying, wet sprinkling, or moisture-retaining covering. Protect the concrete continuously for the concrete curing period. Provide hot weather protection complying with the requirements of ACI 305, unless otherwise specified.
   3. Maintain concrete temperature as uniformly as possible, and protect from rapid atmospheric temperature changes. Avoid temperature changes in concrete which exceed 5° F in any one hour and 50° F in any 24-hour period.

F. Protection from Mechanical Injury:
   1. During the curing period, protect concrete from damaging mechanical disturbances including load stresses, heavy shock, excessive vibration, and from damage caused by rain or flowing water. Protect all finished concrete surfaces from damage by subsequent construction operations.

3.8 FIELD QUALITY CONTROL

A. CONTRACTOR shall employ a testing laboratory to perform field quality control testing. ENGINEER will make slump tests and will direct the number of tests and cylinders required. CONTRACTOR shall make standard compression test cylinders and entrained air tests as specified below, under the direct inspection by ENGINEER. CONTRACTOR shall furnish all necessary assistance required by ENGINEER. CONTRACTOR shall also furnish all labor, material, and equipment required, including cones, rods, molds, air tester, thermometer, curing in a heated storage box, and all other incidentals required. Above will be subject to approval by ENGINEER. CONTRACTOR shall furnish all necessary storage, curing, and transportation required by the testing.

B. Quality Control Testing During Construction:
   1. Perform sampling and testing for field quality control during the placement of concrete, as follows:
      a. Sampling Fresh Concrete: ASTM C172.
      b. Slump: ASTM C143; one test for each concrete load at point of discharge; and one for each set of compressive strength test specimens.
      c. Air Content: ASTM C231; one for every other concrete load at point of discharge, or when required by an indication of change.
      d. Compressive Strength Tests: ASTM C39; one set of compression cylinders for each 50 cubic yards or fraction thereof, of each mix design placed in any one day or for each 2,500 square feet of surface area placed; one specimen tested at seven days, and two specimens tested at 28 days.
         1) Adjust mix if test results are unsatisfactory and resubmit for ENGINEER'S approval.
         2) Concrete which does not meet the strength requirements is subject to rejection and removal from the Work, or to other such corrective measures as directed by ENGINEER, at the expense of CONTRACTOR.
      e. Compression Test Specimens: ASTM C31; make one set of four standard cylinders for each compressive strength test, unless otherwise directed.
         1) Cast, store, and cure specimens as specified in ASTM C31.
      f. Concrete Temperature: Test hourly when air temperature is 40° F and below, and when 80° F and above; and each time a set of compression test specimens is made.
   2. The testing laboratory shall submit certified copies of test results directly to ENGINEER and CONTRACTOR within 24 hours after tests are made.

C. Evaluation of Quality Control Tests:
   1. Do not use concrete delivered to the final point of placement which has slump or total air content outside the specified values.
   2. Compressive strength tests for laboratory-cured cylinders will be considered satisfactory if the averages of all sets of three consecutive compressive strength tests results equal or exceed the 28 day design compressive strength of the type or class of concrete; and, no individual strength test falls below the required compressive strength by more than 500 psi.
      a. Where questionable field conditions may exist during placing concrete or immediately thereafter, strength tests of specimens cured under field conditions will be required by ENGINEER to check the adequacy of curing and protecting of the concrete placed. Specimens shall be molded at the same time and from the same samples as the laboratory cured specimens.
         1) Provide improved means and procedures for protecting concrete when the 28 day compressive strength of field-cured cylinders is less than 85% of companion laboratory-cured cylinders.

2) When laboratory-cured cylinder strengths are appreciably higher than the minimum required compressive strength, field-cured cylinder strengths need not exceed the minimum required compressive strength by more than 500 psi even though the 85% criterion is not met.
3) If individual tests of laboratory-cured specimens produce strengths more than 500 psi below the required minimum compressive strength, or if tests of field-cured cylinders indicate deficiencies in protection and curing, provide additional measures to assure that the load-bearing capacity of the structure is not jeopardized. If the likelihood of low-strength concrete is confirmed and computations indicate the load-bearing capacity may have been significantly reduced, tests of cores drilled from the area in question will be required at CONTRACTOR'S expense.

b. If the compressive strength tests fail to meet the minimum requirements specified, the concrete represented by such tests will be considered deficient in strength and subject to replacement, reconstruction or to other action approved by ENGINEER.

D. Testing Concrete Structure for Strength:
1. When the OWNER employed testing laboratory results indicate that the strength of the in-place concrete does not meet Specification requirements, CONTRACTOR shall employ, at his expense, the services of a concrete testing service to take cores drilled from hardened concrete for compressive strength determination. Tests shall comply with ASTM C42 and the following:
   a. Take at least three representative cores from each member or suspect area at locations directed by ENGINEER.
   b. Strength of concrete for each series of cores will be considered satisfactory if their average compressive strength is at least 85% and no single core is less than 75% of the 28 day required compressive strength.
   c. Report test results in writing to ENGINEER on the same day that tests are made. Include in test reports the Project identification name and number, date, name of CONTRACTOR, name of concrete testing service, location of test core in the structure, type, or class of concrete represented by core sample, nominal maximum size aggregate, design compressive strength, compression breaking strength and type of break (corrected for length-diameter ratio), direction of applied load to core with respect to horizontal plane of the concrete as placed, and the moisture condition of the core at time of testing.
2. Fill core holes solid with non-shrink, high strength grout, and finish to match adjacent concrete surfaces.
3. Conduct static load test and evaluations complying with ACI 318 if the results of the core tests are unsatisfactory, or if core tests are impractical to obtain, as directed by ENGINEER.
4. OWNER, at his own expense, may also conduct the same tests using the laboratory of OWNER'S choice when the test results show that the concrete

does not meet the specifications. The CONTRACTOR shall coordinate with the OWNER and ENGINEER prior to taking any representative samples and beginning the testing process.

3.9 MISCELLANEOUS CONCRETE ITEMS

A. Filling-In:
   1. Fill-in holes and openings left in concrete structures for the passage of work by other contractors, unless otherwise shown or directed, after the work of other contractors is in place. Mix, place and cure concrete as herein specified, to blend with in-place construction. Provide all other miscellaneous concrete filling shown or required to complete the Work.

B. Curbs:
   1. Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.
   2. Exterior curbs shall have rubbed finish for vertical surfaces and a broomed finish for top surfaces.

C. Equipment Bases:
   1. Unless specifically shown otherwise, provide concrete bases for all pumps and other equipment. Construct bases to the dimensions shown, or as required to meet manufacturer's requirements and drawing elevations. Where no specific elevations are shown, bases shall be 6-inches thick and extend 3-inches outside the metal equipment base or supports. Bases to have smooth trowel finish, unless a special finish such as terrazzo, ceramic tile or heavy-duty concrete topping is required. In those cases, provide appropriate concrete finish.
   2. Include all concrete equipment base work not specifically included under other Sections or other contracts.
   3. In general, place bases up to 1-1/2-inches below the metal base. Properly shim equipment to grade and fill 1-1/2-inch void with non-shrink grout, as specified in Section 03600, Grout.

3.10 CONCRETE ENCASEMENT OF ELECTRICAL DUCT BANKS

A. Mix red dye into concrete to be used for encasement.

B. Provide a minimum covering of 3-inches of concrete over the top and sides of the conduit and conduit supports.

C. Conduit shall be firmly fixed in place before pouring concrete. Vibrate the concrete to ensure filling of all spaces between conduits.

D. Where duct banks pass under paved or unpaved roadways, concrete encasement shall be reinforced with No. 4 longitudinal steel bars placed at each "corner" and at 18-inches o.c. along the top and sides of the duct bank. Place No. 3 tie-bars

placed tranversely at 18-inches o.c. Maintain a minimum cover of 2-inches of concrete over the reinforcing bars.

E. Install a bare stranded copper duct bank ground in each duct bank. Make the ground electrically continuous throughout the entire duct bank system and connect to switchgear and motor control center ground busses and to steel conduit extension of the underground duct system.

3.11 CONCRETE REPAIRS

A. Repair of Formed Surfaces:
   1. Repair exposed-to-view formed concrete surfaces, that contain defects which adversely affect the appearance of the finish. Surface defects that require repair include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, and holes left by the rods and bolts; fins and other projections on the surface; and stains and other discolorations that cannot be removed by cleaning.
   2. Repair concealed formed concrete surfaces that may contain defects that adversely affect the durability of the concrete. Surface defects that require repair include cracks in excess of 0.01-inch wide, cracks of any width and other surface deficiencies which penetrate to the reinforcement or completely through non-reinforced sections, honeycomb, rock pockets, holes left by tie rods and bolts, and spalls except minor breakage at corner.

B. Repair structural cracks and cracks in water-holding structures. Method of Repair of Formed Surfaces:
   1. Repair and patch defective areas with cement mortar immediately after removal of forms and as directed by ENGINEER.
   2. Cut out honeycomb, rock pockets, voids over 1/2-inch diameter, and holes left by tie rods and bolts, down to solid concrete but, in no case, to a depth of less than 1-inch. Make edges of cuts perpendicular to the concrete surface. Before placing the cement mortar, thoroughly clean, dampen with water, and brush-coat the area to be patched with the specified bonding agent.
      a. For exposed-to-view surfaces, blend white Portland cement and standard Portland cement so that, when dry, the patching mortar color will match the color of the surrounding concrete. CONTRACTOR shall impart texture to repaired surfaces to match texture of existing adjacent surfaces. Provide test areas at inconspicuous locations to verify mixture, texture and color match before proceeding with the patching. Compact mortar in place and strike off slightly higher than the surrounding surface.
   3. Cracks which require repair shall be pressure grouted using one of the following. Apply in accordance with the manufacturer's directions and recommendations.
      a. Sikadur 35, Hi-Mod L.V., and Sikadur 31, Hi-Mod Gel, as manufactured by Sika Corporation Company.

b. Euco Epoxy #452 Epoxy System, as manufactured by The Euclid Chemical Company.
c. Or approved equal.

4. Fill holes extending through concrete by means of a plunger-type gun or other suitable device from the least exposed face, using a flush stop held at the exposed face to ensure completely filling.
5. Sandblast exposed-to-view surfaces that require removal of stains, grout accumulations, sealing compounds, and other substances marring the surfaces. Use sand finer than No. 30 and air pressure from 15 to 25 psi.

C. Repair of Unformed Surfaces:
1. Test unformed surfaces, such as monolithic slabs, for smoothness and to verify surface plane to the tolerances specified for each surface and finish. Correct low and high areas as herein specified.
2. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness, using a template having the required slope. Correct high and low areas as herein specified.
3. Repair finish of unformed surfaces that contain defects which adversely affect the durability of the concrete. Surface defects as such, include crazing, cracks in excess of 0.01-inch wide or which penetrate to the reinforcement or completely through non-reinforced sections regardless of width, spalling, popouts, honeycomb, rock pockets, and other objectionable conditions.
4. Repair structural cracks and cracks in water-holding structures.

D. Methods of Repair of Unformed Surfaces:
1. Correct high areas in unformed surfaces by grinding, after the concrete has cured sufficiently so that repairs can be made without damage to adjacent areas.
2. Correct low areas in unformed surfaces during, or immediately after completion of surface finishing operations by cutting out the low areas and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Use one of the following. Apply in accordance with the manufacturer's directions and recommendations.
a. Euco Poly-Patch, as manufactured by The Euclid Chemical Company.
b. Sikatop 122, as manufactured by Sika Corporation.
c. Or approved equal.
3. Repair defective areas, except random cracks and single holes not exceeding 1-inch diameter, by cutting out and replacing with fresh concrete. Remove defective areas to sound concrete with clean, square cuts, and expose reinforcing steel with at least 3/4-inch clearance all around. Dampen all concrete surfaces in contact with patching concrete and brush with the specified bonding agent. Place patching concrete before grout takes its initial set. Mix patching concrete of the same materials and proportions to provide concrete of the same type or class as the original adjacent concrete. Place, compact and finish as required to blend with adjacent finished concrete. Cure in the same manner as adjacent concrete.

4. Repair isolated random cracks and single holes not over 1-inch diameter, by the dry-pack method. Groove the top of cracks, and cut out holes to sound concrete and clean of dust, dirt and loose particles. Dampen all cleaned concrete surfaces and brush with the specified bonding agent. Place dry pack before the cement grout takes its initial set. Mix dry-pack, consisting of one part Portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing. Compact dry pack mixture in place and finish to match adjacent concrete. Keep patched areas continuously moist for not less than 72 hours.
5. Cracks which require repair shall be pressure grouted using one of the following. Apply in accordance with the manufacturer's directions and recommendations.
    a. Sikadur 35, Hi-Mod L.V., and Sikadur 31, Hi-Mod Gel, as manufactured by Sika Corporation.
    b. Euco Epoxy #452 Epoxy System, as manufactured by The Euclid Chemical Company.
    c. Or approved equal.
6. Assure that surface is acceptable for flooring material to be installed in accordance with manufacturer's recommendations.

E. Other Methods of Repair:
    1. Repair methods not specified above may be used if approved by ENGINEER.

END OF SECTION

SECTION 09900

PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes surface preparation and field painting of the following:
   1. Exposed exterior items and surfaces.
   2. Exposed interior items and surfaces.
   3. Surface preparation, priming, and finish coats specified in this Section are in addition to shop priming and surface treatment specified in other Sections.

B. Paint exposed surfaces, except where the paint schedules indicate that a surface or material is not to be painted or is to remain natural. If the paint schedules do not specifically mention an item or a surface, paint the item or surface the same as similar adjacent materials or surfaces, whether or not schedules indicate colors. If the schedules do not indicate color or finish that is mentioned, the ENGINEER will select from standard colors and finishes available.
   1. Painting includes field painting of exposed bare and covered pipes and ducts (including color coding), hangers, exposed steel and iron work, and primed metal surfaces of mechanical and electrical equipment.

C. Unless indicated otherwise, do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
   1. Prefinished items include, but are not limited to, the following factory-finished components:
      a. Architectural woodwork and casework.
      b. Motor nameplates.
      c. Instrumentation and electrical mounting hardware such as nuts, bolts, screws, U-bolts, handles, latches, and hinges.
      d. Analyzers, probes, nuts, bolts, and screws or any mounting hardware.
      e. Metal toilet enclosures.
      f. Acoustical ceiling panels.
      g. Metal lockers.
      h. Ceramic tile, windows, glass, resilient flooring; other architectural features, such as "finish" hardware, furnished in aluminum, bronze or plated ferrous metal, prefinished panels, or other items installed prefinished.
      i. Finished mechanical and electrical equipment, except as indicated in the Specifications or on the Plans.
      j. Light fixtures.
      k. Interior distribution cabinets and switch gear, except as indicated.
   2. Concealed surfaces include walls or ceilings in the following generally inaccessible spaces:

a. Foundation spaces, unless noted otherwise.
b. Surfaces behind furred areas.
c. Ceiling plenums.
d. Utility tunnels.
e. Pipe spaces.
f. Duct shafts.

3. Finished metal surfaces include the following:
   a. Stainless steel or chromium plated items.
   b. Chromium plate.
   c. Copper.
   d. Bronze and brass.
   e. Buried cast and ductile iron pipe encased with a protective polyethylene sleeve.
   f. Anodized aluminum, aluminum gratings, and floor plates.
      1) Paint aluminum surfaces in contact with concrete, grout, masonry, wood, or dissimilar materials as described below:
         a) Surface must be clean, dry, and free of oil, grease, and other contaminants. Surface preparation with SSPC-SP7 brush-off abrasive blast cleaning. Apply two coats of Tnemec Series 20 Pota-Pox or approved equal; each coat shall be 3-5 mils. Coating must be NSF 61 approved.
   g. Prefinished louvers, except those in doors, unless otherwise noted and acoustical ceiling panels.
4. Operating parts include moving parts of operating equipment and the following:
   a. Valve and damper operators or handles.
   b. Linkages.
   c. Sensing devices.
   d. Motor and fan shafts.
5. Labels: Do not paint over Underwriters Laboratories (UL), Factory Mutual (FM), fire rating labels, equipment serial number and capacity labels, or other code-required labels or equipment name, identification, performance rating, nomenclature plates, and equipment identification plates.

1.2 RELATED SECTIONS

A. Division 1, General Requirements, Specification Sections, apply to this Section.

1.3 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints and other coatings.

C. Pipe identification markers.

D. Surfaces to Be Finished are provided in the schedule at end of Section and in the Contract Documents.

1.4 REFERENCES

A. ANSI A13.1, Scheme for the Identification of Piping Systems; 1981 (revised 1993).

B. ASTM D16, Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products; 1995.

C. OSHA 1910.144, Code of Federal Regulations (CFR) Title 29.

D. SSPC (PM2), Steel Structures Painting Manual, Vol. 2, Systems and Specifications; Steel Structures Painting Council; 1995.

1.5 DEFINITIONS

A. General: Standard coating terms defined in ASTM D16 apply to this Section.
   1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85 degree meter.
   2. Eggshell refers to low-sheen finish with a gloss range between 5 and 20 when measured at a 60-degree meter.
   3. Satin refers to low-sheen finish with a gloss range between 15 and 35 when measured at a 60 degree meter.
   4. Semi-gloss refers to medium-sheen finish with a gloss range between 30 and 65 when measured at a 60 degree meter.
   5. Full gloss refers to high-sheen finish with a gloss range more than 65 when measured at a 60 degree meter.
   6. Buried refers to covered with earth.
   7. Exposed or exposed surfaces refers to areas visible when permanent or built-in fixtures, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
   8. Submerged refers to materials which are permanently or intermittently below the maximum water or liquid surface elevation in open top structures, unless otherwise noted or otherwise shown; materials within liquid or residual solids carrying structures that are covered, including materials on the underside of the covers, whether in contact with liquids or not, unless otherwise noted or otherwise shown; materials within an enclosed process structure, whether in contact with liquids or not.

1.6 SUBMITTALS

A. See Section 01300, Submittals, for submittal procedures.

B. Product Data: For each paint system specified. Include block fillers and primers.

1. Material List: Provide an inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
2. Manufacturer's Information: Provide manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material proposed for use.
    a. Identify manufacturer's recommended, published spreading rate, and dry film thickness of each coating material proposed for use.
    b. Indicate manufacturer's instructions on surface and special surface preparation procedures.
    c. Include the following: Mixing instructions, shelf life, method of application, recommended number of coats, drying time of each coat including prime coat, required prime coat, compatible and non-compatible prime coats, and recommended thinners when required.

C. Pipe Identification Markers: Submit product data and marker sample for each type of pipe identification required.

D. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.

E. Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each type of finish-coat material indicated. Submit two paper chip samples, 3-inch by 3-inch in size.

F. Before supplying any material to the site, the painting subcontractor and the paint manufacturer's area representative shall prepare a complete schedule showing the materials proposed to be used for each treatment specified, and submit same to ARCHITECT and ENGINEER for review/approval.

G. Paint colors will be specified by the ARCHITECT for the architectural paint system specified herein, who, before any Work is done, will furnish color chips and schedule showing where the various colors shall go.

H. Qualification Data: For firms and persons specified in Paragraph 1.9 to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Engineers or Architects and Owners, and other information specified.

I. Manufacturer's Certification: Submit in accordance with Paragraph 3.8 at the completion of the Work.

J. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓)

shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

1.7 REGULATORY REQUIREMENTS

A. Conform to applicable code for flame and smoke rating and VOC requirements for products and finishes.

B. Lead, heavy metals, cadmium, and chromate content of painting materials shall not exceed amount permitted by Federal, State, and local authorities.

C. Coatings for surfaces in contact with potable water or water being treated for potable use shall not impart any taste or odor to the water or result in any organic or inorganic content in excess of the maximum contaminant level established by applicable laws or regulations.

D. Comply with governing code requirements for air quality and material disposal regulations.

1.8 MOCK-UP

A. Provide stepped-down job mock-ups for all painting and coating systems showing all components of the preparation and installation before any Work shall commence. Verify all dry film thicknesses, surface preparations, and methods of installation in addition to color and texture of the finished work.

B. Provide mock-ups for each of the following substrates, illustrating painting and coating colors and finishes:
   1. Ferrous Metal: Provide panel equal to 4 square feet in size for each color and finish.
   2. Provide door and frame assembly for each paint coating color and finish.

C. Locate where directed by ENGINEER.

D. Mock-up(s) may remain as part of the Work.

E. Work advanced without approved job mock-ups shall be completely removed and re-installed without additional compensation to the OWNER.

1.9 QUALITY ASSURANCE

A. Applicator Qualifications: Engage an experienced applicator who has completed painting system applications similar in material and extent to that indicated for this Project with a record of successful in-service performance.

B. Source Limitations: Obtain block fillers, primers, and undercoat materials for each coating system from the same manufacturer as the finish coats.

C. Products shall be of best grade or first line.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
   1. Product name or title of material.
   2. Product description (generic classification or binder type).
   3. Manufacturer's stock number, lot number, brand code, and date of manufacture.
   4. Contents by volume for pigment and vehicle constituents.
   5. Thinning instructions.
   6. Application instructions.
   7. Coverage and surface preparation.
   8. Drying time.
   9. Cleanup requirements.
   10. Instructions for mixing and reducing.
   11. Color name and number.
   12. Material Safety Data Sheets.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45º F (7º C). Maintain containers used in storage in a clean condition, free of foreign materials and residue.
   1. Protect from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and application.
   2. Provide fire extinguishers and post caution signs warning against smoking and open flame when working with flammable materials.

C. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing, or replacing and repainting, as approved by the ENGINEER. Provide "Wet Paint" signs to protect newly painted

finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.

1.11 PROJECT CONDITIONS

A. Apply water-based paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 50º F and 120º F (10º C and 48.9º C).

B. Apply solvent-thinned paints only when the temperature of surfaces to be painted and surrounding air temperatures are between 45º F and 120º F (7.2º C and 48.9º C).

C. Provide lighting level of 80 foot candles measured mid-height at substrate surface.

D. Do not apply paint in snow, rain, fog, or mist; or when the relative humidity exceeds 85%; or at temperatures less than 5º F (3º C) above the dew point; or to damp or wet surfaces.
   1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.12 UNUSED MATERIALS

A. Furnish unused materials in unopened or opened and resealed containers for storage and identify with labels describing contents. Deliver materials to the OWNER.

1.13 EXTRA MATERIALS

A. Supply one gallon of each color; store where directed.

B. Label each container with color in addition to the manufacturer's label.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in the paint schedules.

B. Manufacturers Names: The following manufacturers are referred to in the paint schedules by use of shortened versions of their names, which are shown in parentheses:
   1. Benjamin Moore & Co. (Moore).
   2. PPG Industries, Inc. (PPG).
   3. Tnemec Co. (Tnemec).

4. Frazee Paint.
5. Ameron.
6. Valspar.

2.2 PAINT MATERIALS, GENERAL

A. Paint exposed surfaces, except as indicated in Paragraph 1.4 and/or in Drawings/Specifications. If an item or surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials of surfaces whether or not the schedule indicates color(s). If the schedule does not indicate color(s) or finish(es), the ENGINEER will select from standard colors and finishes available.

B. Equipment supplied with a finished coat by the manufacturers shall be touched-up by the CONTRACTOR.

C. Paints and Coatings: Ready mixed, except field-catalyzed coatings. Prepare pigments:
   1. To a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating.
   2. For good flow and brushing properties.
   3. Capable of drying or curing free of streaks or sags.

D. Metals encased in concrete shall only receive a primer compatible with the covering material.

E. All items under and around the metal canopies shall be considered exterior and painted with materials conforming to those specified in this Specification.

F. Material Compatibility: Provide block fillers, primers, undercoats, and finish coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

G. Material Quality: Provide manufacturer's best-quality paint material of the various coating types specified. Paint-material containers not displaying manufacturer's product identification will not be acceptable.
   1. Proprietary Names: Use of manufacturer's proprietary product names to designate colors or materials is not intended to imply that products named are required to be used to the exclusion of equivalent products of other manufacturers. Furnish manufacturer's material data and certificates of performance for proposed substitutions.

H. Color Coding: Unless otherwise specified, all color coding of piping, ducts, and equipment shall comply with applicable standards of the following:
   1. ANSI A13.1.
   2. OSHA 1910.144.

I. At completion of construction activities of other trades, touch-up and restore damaged or defaced painted surfaces.

J. Architectural Color Schedule: Colors indicated are by Tnemec Company, Inc.: www.tnemec.com.
   1. Shading Devices: Match existing colors at existing Administration Building located on site.
   2. Exterior Hollow Metal Doors and Frames: Match existing colors at existing Administration Building located on site.
   3. Exposed CMU, Interior: 11WH White.
   4. Interior Hollow Metal Doors and Frames: 33GR Grey.
   5. Exposed Gypsum Board, Interior: 07WH Winter Mist.

K. Colors: All colors as selected by ENGINEER from manufacturer's standards except as follows:
   1. Color of safety stripe at bollards match PPG 6-330 Safety Yellow.

2.3 PAINT SYSTEMS - INTERIOR AND EXTERIOR

A. Field Primed Steel and Ferrous Metal:
   1. Exterior Exposure, Hot Air Carbon Steel Pipe:
      a. Surface Preparation: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
      b. Prime Coat: Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 4-6 mils DFT (dry film thickness).
      c. Finish Coat: Series 75 Endura-Shield II; one coat; 3-5 mils DFT.
   2. Exterior Exposure:
      a. Surface Preparation: SSPC SP6 Commercial Abrasive Blast Cleaning.
      b. Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 4-6 mils DFT (dry film thickness).
      c. Finish Coat: Series 73 Endura-Shield; one coat; 3-4 mils DFT.
   3. Interior Exposure:
      a. Surface Preparation: SSPC SP6 Commercial Abrasive Blast Cleaning.
      b. Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 3-5 mils DFT.
      c. Finish Coat: Series 69 H.B. Epoxoline; one coat; 4-6 mils DFT.
   4. Immersion or Partial Immersion Exposure:
      a. Surface Preparation: SSPC SP10 Near-White Metal Abrasive Blast Cleaning.
      b. Prime Coat: Series 66 H.B. Epoxoline; one coat; 4-6 mils DFT.
      c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.

B. Shop and Factory Primed Steel:
   1. Exterior Exposure:
      a. Field Prime Coat (over factory prime coat): Series 135 (beige) Chembuild; one coat; 3-4 mils DFT.

b. Finish Coat: Series 73 Endura-Shield; one coat; 3-4 mils DFT.

2. Interior Exposure:
   a. Field Prime Coat (over factory prime coat): Series 135 (beige) Chembuild; one coat; 3-4 mils DFT.
   b. Finish Coat: Series 69 H.B. Epoxoline; one coat; 4-6 mils DFT.
3. Immersion or Partial Immersion Exposure:
   a. Surface Preparation: Brush off abrasive blast cleaning if required for recoat of the shop primer. Coating surface to be clean, dry, and free of contaminants prior to application of the field coats.
   b. Prime Coat: Series 66 H.B. Epoxoline; one coat; 2.5-3 mils DFT.
   c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.

C. Galvanized Steel and Non-Ferrous Metals:
1. Exterior Exposure:
   a. Surface Preparation: Brush-off abrasive blast cleaning.
   b. Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 3-4 mils DFT.
   c. Finish Coat: Series 73 Endure-Shield; one coat; 3-4 mils DFT.
2. Interior Exposure:
   a. Surface Preparation: Clean, dry and free of contaminants.
   b. Prime Coat: Series 135 (beige) Chembuild; one coat; 3-4 mils.
   c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.
3. Immersion or Partial Immersion Exposure:
   a. Surface Preparation: Brush-off abrasive blast cleaning.
   b. Prime Coat: Series 66 H.B. Epoxoline; one coat; 4-6 mils DFT.
   c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.

D. Ductile and Cast Iron:
1. Exterior Exposure:
   a. Surface Preparation: Solvent scrub with stiff bristle brush, followed by brush-off abrasive blast cleaning to a minimum surface profile depth of 1.5 mils DFT.
   b. Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 3-5 mils DFT.
   c. Finish Coat: Series 73 Endura-Shield; one coat; 3-4 mils DFT.
2. Interior Exposure:
   a. Surface Preparation: Clean, dry, and free of contaminants.
   b. Prime Coat: Series 135 Chembuild; one coat; 4-6 mils DFT.
   c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.
3. Buried:
   a. Surface Preparation: Solvent scrub with stiff bristle brush followed by brush-off abrasive blast cleaning to a minimum surface profile depth of 1.5 mils DFT.
   b. Prime Coat: Series 69-1255 (beige) H.B. Epoxoline II; one coat; 3-5 mils DFT.
   c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.

4. Immersion:
    a. Surface Preparation: Solvent scrub with stiff bristle brush, followed by brush-off abrasive blast cleaning to a minimum surface profile depth of 1.5 mils.
    b. Prime Coat: Series 66 H.B. Epoxoline; one coat; 4-6 mils DFT.
    c. Finish Coat: Series 69 H.B. Epoxoline II; one coat; 4-6 mils DFT.

E. Masonry:
1. Interior Exposed CMU:
    a. Surface Preparation: Clean, dry, and free of contaminants.
    b. Block Filler: Series 130 Envirofill; one coat; 60-80 square foot per gallon.
    c. Finish Coats: Series 69 H.B. Epoxoline II; two coats; 4-6 mils DFT per coat.

F. PVC:
1. Exterior Exposure:
    a. Surface Preparation: Clean, dry, and free of contaminants.
    b. Prime Coat: Series 66 H.B. Epoxoline; one coat; 3-5 mils DFT.
    c. Finish Coat: Series 73 Endure-Shield; one coat; 3-4 mils DFT.
2. Interior Exposure:
    a. Surface Preparation: Clean, dry, and free of contaminants.
    b. Finish Coat: Series 66 H.B. Epoxoline; two coats; 3-5 mils DFT per coat.

G. Wood (Except Preservative-Treated Wood):
1. Interior and Exterior Exposure:
    a. Surface Preparation: Clean, dry, and free of contaminants.
    b. Prime Coat: Series 36 Undercoater; one coat; 2-3.5 mils DFT.
    c. Finish Coat: Series 23 Enduratone; two coats; 1.5-3.5 mils DFT per coat.

2.4 ARCHITECTURAL PAINT SYSTEMS

A. Concrete Gloss Epoxy:
1. Surface Preparation: All surfaces to be clean and free of contaminants prior to application of the coating system.
2. Prime Coat: Series 104 H.S. Epoxy; one coat; 4-5 mils DFT.
3. Finish Coat: Series 104 H.S. Epoxy; one coat; 4-5 mils DFT.

B. Interior Gypsum Wallboard and Plaster: Ducts/Pipes:
1. Surface Preparation: Clean dry and free of contaminants prior to application of coating system.
2. Prime Coat: Series 51-792 PVA Sealer; one coat; 1-2 mils DFT.
3. Finish Coats: Series 113 Tufcoat; two coats; 4-5 mils DFT per coat.

C. Insulated Ducts/Pipes:

1. Surface Preparation: All surfaces to be clean and free of contaminants prior to application of the coating system.
2. Prime Coats: Series 6 Tneme-Cryl; one coat; 2-3 mils DFT.

D. Concrete Semi-Gloss Latex:
1. Surface Preparation: All surfaces to be clean and free of contaminants prior to application of the coating system.
2. Prime Coat: Series 7 Tneme-Cryl; one coat; 2-3 mils DFT.
3. Finish Coat: Series 7 Tneme-Cryl; one coat; 2-3 mils DFT.

2.5 PIPE IDENTIFICATION MARKERS

A. Manufacturers: Provide products by one of the following:
1. Seton Name Plate Company.
2. W.H. Brady Company.
3. Or equal.

B. General: The size of lettering and marker shall conform to ANSI A13.1.

C. Provide brass tags for pipes under 3/4-inch outside diameter. Provide plastic pipe markers for pipes over 3/4-inch.

D. Plastic Pipe Markers: Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering; minimum information indicating flow direction arrow and identification of fluid being conveyed.
1. Markers for piping up to 6-inch diameter shall be preformed to completely wrap around the pipe requiring no adhesive. Markers for pipes over 6-inch diameter shall be preformed to the contour of the pipe and attached with stainless steel spring fasteners.

E. Metal Tags: Brass with stamped letters; tag size minimum 1-1/2-inch diameter with smooth edges.

PART 3 - EXECUTION

3.1 INSPECTION

A. Inspect substrates, areas, and conditions, with the applicator present, under which painting will be performed for compliance with paint application requirements. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
1. Do not begin to apply paint until unsatisfactory conditions have been corrected and surfaces receiving paint are thoroughly dry.
2. Start of painting will be construed as the applicator's acceptance of surfaces and conditions within a particular area.

B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
   1. Notify the ENGINEER about anticipated problems using the materials specified over substrates primed by others.

3.2 PREPARATION

A. Perform all preparation and cleaning procedures as specified herein and in strict accordance with the paint manufacturer's instructions for each particular substrate and atmospheric condition.

B. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease with clean cloths and cleaning solvents prior to mechanical cleaning. Program the cleaning and painting so that dust and other contaminants from the cleaning process will not fall in wet, newly painted surfaces.

C. Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or droppings from fouling surfaces not being painted and, in particular, surfaces within storage and preparation area.

D. Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of the size or weight of the item, provide surface-applied protection before surface preparation and painting.
   1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.

E. Surfaces: Correct defects and clean surfaces which affect Work of this Section. Remove or repair existing coatings that exhibit surface defects.

F. Marks: Seal marks which may bleed through surface finishes with barrier coat compatible with paint.

G. Impervious Surfaces: Remove mildew in accordance with paint manufacturer's recommendations.

H. Cleaning: Before applying paint or other surface treatments, clean the substrates of substances that could impair the bond of the various coatings. Remove oil and grease before cleaning.
   1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.

I. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.

1. Provide barrier coats over incompatible primers or remove and reprime.
2. Cementitious Materials: Prepare concrete, concrete masonry block, cement plaster, and mineral fiber-reinforced cement panel surfaces to be painted. Remove stains, loose mortar, scale, salt, efflorescence, chalk, dust, dirt, grease, oils, release agents, and other foreign matter in accordance with paint manufacturers's recommendations. Do not use wire brushes for preparation or cleaning. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods of surface preparation.
    a. Use abrasive blast cleaning methods if recommended by paint manufacturer.
    b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not paint surfaces where moisture content exceeds that permitted in manufacturer's written instructions.
    c. Clean concrete floors to be painted with a 5% solution of muriatic acid or other etching cleaner. Flush the floor with clean water to remove acid, neutralize with ammonia, rinse, allow to dry, and vacuum before painting.
3. Wood: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sand surfaces exposed-to-view smooth and dust off.
    a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer before applying primer. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood filler. Sand smooth when dried.
    b. Seal pitch streaks and sappy sections with sealer. Seal cracks, pitch streaks, and sappy sections with sealer. Fill nail holes and cracks with caulking compound after prime coat has been applied; sand between coats. Back prime concealed surfaces before installation.
    c. Prime, stain, or seal wood to be painted immediately on delivery. Prime edges, ends, faces, undersides, and backsides of wood, including cabinets, counters, cases, and paneling.
    d. When transparent finish is required, back prime with spar varnish.
    e. Seal tops, bottoms, and cutouts of unprimed wood doors with a heavy coat of varnish or sealer immediately on delivery.
4. Gypsum Board Surfaces to Be Painted: Fill minor defects with filler compound. Spot prime defects after repair.
5. Zinc Coated Surfaces: Remove surface contamination and oils and prepare for priming in accordance with metal manufacturer's recommendations.
6. Plaster Surfaces to Be Painted: Allow new plaster surfaces to cure 28 days. Remove grease, dirt, loose mortar, scale or alkali powder, high alkali surfaces, and other foreign matter in accordance with paint manufacturer's recommendation. Fill hairline cracks, small holes, and imperfections with

patching plaster that is compatible with paint. Make smooth and flush with adjacent surfaces. Do not use wire brushes for preparation or cleaning.

7. Aluminum: Remove surface contamination by steam or high pressure water. Remove oxidation with acid etch and solvent washing.
8. Copper: Remove surface contamination by steam or high pressure water.
9. Ferrous Metals: Clean and remove oil, grease, dirt, loose mill scale, and other foreign substances from ungalvanized ferrous metal surfaces that have not been shop coated as outlined in Paragraph 2.3. Use solvent or mechanical cleaning methods that comply with the Steel Structures Painting Council's (SSPC) recommendations.
    a. Blast steel surfaces clean, as recommended by paint system manufacturer.
    b. Touch-up bare areas and shop applied prime coats that have been damaged. Wire brush, clean with solvents recommended by paint manufacturer, and touch-up with the same primer as the shop coat.
    c. For shop-primed ferrous metal surfaces, clean and prepare in accordance with manufacturer's recommendations. Feather edges to make touch-up patches inconspicuous. Prime bare steel surfaces. Provide barrier coat over entire shop primed items.
10. Galvanized Surfaces: Clean galvanized surfaces with nonpetroleum-based solvents so surface is free of oil and surface contaminants. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
11. Ductile Iron Pipe: All new ductile iron pipe (DIP) intended for immersion service shall be prepared per coating manufacturer's specifications and as specified herein.
    a. Remove grease, rust scale, rust and touch-up any chipped or abraded areas on items that have been shop coated. Items intended for immersion service that have not been shop coated shall be sandblasted to "Near White Blast Cleaning" condition per SSPC SP-10 prior to receiving coating.
    b. All new DIP intended for non-immersion service shall be sandblasted to "Commercial Blast Cleaning" condition per SSPC SP-6 prior to receiving coating.

J. Materials Preparation: Mix and prepare paint materials according to manufacturer's written instructions.
    1. Maintain containers used in mixing and applying paint in a clean condition, free of foreign materials and residue.
    2. Stir material before application to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into material. If necessary, remove surface film and strain material before using.
    3. Use only thinners approved by paint manufacturer and only within recommended limits.

K. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of the same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
   1. Any spot measurement found below the required minimum dry film thickness shall be repainted by the CONTRACTOR in accordance with the manufacturer's instructions, at no additional cost to the OWNER.
   2. Do not apply finishes on surfaces that are not sufficiently dry. Allow each coat of finish to dry before following coat is applied, unless directed otherwise by the manufacturer.
   3. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
   4. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
   5. Install piping identification markers after painting has been completed according to the color coding schedule indicated.
   6. Paint colors, surface treatments, and finishes are indicated in the schedules located at the end of this Section.
   7. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to formation of a durable paint film.
   8. Provide finish coats that are compatible with primers used.
   9. Finish edges, tops and bottoms of all doors the same as door faces. Both sides and all edges of doors to be finished simultaneously.
   10. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, covers for finned-tube radiation, grilles, and similar components are in place. Extend coatings in these areas, as required, to maintain the system integrity and provide desired protection.
   11. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Before the final installation of movable equipment, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
   12. Paint interior surfaces of ducts with a flat, nonspecular black paint where visible through registers or grilles.
   13. Finish exterior doors on tops, bottoms, and side edges the same as exterior faces.
   14. Finish interior of wall and base cabinets and similar field-finished casework to match exterior.
   15. Sand lightly between each succeeding enamel or varnish coat.

B. Scheduling Painting: Apply first coat to surfaces that have been cleaned, pre-treated, or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
   1. The number of coats required are the same regardless of application method. Do not apply succeeding coats until the previous coat has cured, as recommended by the manufacturer. If sanding is required to produce a smooth, even surface according to manufacturer's written instructions, sand between applications.
      a. Apply each coat in film thicknesses as recommended by the manufacturer.
   2. Unless recommended by the manufacturer, omit primer on factory finished metal surfaces indicated to be field painted or metal surfaces that have been shop primed and touch-up painted.
   3. If undercoats, stains, or other conditions show through final coat of paint, apply additional coats until paint film is of uniform finish, color, and appearance. Give special attention to ensure edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
   4. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and where application of another coat of paint does not cause the undercoat to lift or lose adhesion.

C. Application Procedures: Apply paints and coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
   1. Brushes: Use brushes best suited for the type of material applied. Use brush of appropriate size for the surface or item being painted.
   2. Rollers: Use rollers of carpet, velvet back, or high-pile sheep's wool, as recommended by the manufacturer for the material and texture required.
   3. Spray Equipment: Use airless spray equipment with orifice size and pressure, as recommended by the manufacturer for the material and texture required.

D. Minimum Coating Thickness: Apply paint materials no thinner than manufacturer's recommended spreading rate. Provide the total dry film thickness of each coat and of the entire system as recommended by the manufacturer.

3.4 FINISHING MECHANICAL AND ELECTRICAL EQUIPMENT

A. Electrical and mechanical items to be painted include the following, whether factory prefinished or not, with color selected by the ENGINEER:
   1. Exterior mechanical and electrical equipment and accessories including, but not limited to, the following:
      a. Electrical and instrument panels, motor control centers, and switch gear.
      b. Electrical conduit and accessories.
      c. Transformers.

d. Brackets.
e. Meter enclosures.
f. Conduit.
g. Components that are visible or exposed to the weather.
h. Exhaust fans and blowers.

2. Exterior roof mounted mechanical and electrical equipment, any component of which is above adjacent parapets, including but not limited to, the following:
   a. Roof mounted HVAC units.
   b. Exhaust stacks, blowers, vents, etc.
   c. Miscellaneous steel support components for mechanical equipment screens.

B. Paint interior factory finished mechanical and electrical components selected by the ENGINEER from the manufacturer's standards, including, but not limited to, the following:
   1. Piping (per color code and schedule), pipe hangers, and supports.
   2. Duct work.
   3. Duct throats behind grilles, registers, louvers, baffles, etc., shall be given one coat of flat acrylic latex (copolymer) black paint wherever visibility of the interior of the duct is allowed.
   4. Switchboards.
   5. Disconnect switches.
   6. Pumps, motors, and mechanical equipment.
   7. Gear reducers.
   8. Accessory items.
   9. Conduit and fittings (per color code and schedule).
   10. Switchgear.
   11. Panelboards.

C. Block Fillers: Apply block fillers to concrete masonry block at a rate to ensure complete coverage with pores filled.

D. Prime Coats: Before applying finish coats, apply a prime coat of material, as recommended by the manufacturer, to material that is required to be painted or finished and that has not been prime coated by others. Recoat primed and sealed surfaces where evidence of suction spots or unsealed areas in first coat appears, to ensure a finish coat with no burn through or other defects due to insufficient sealing.

E. Pigmented (Opaque) Finishes: Completely cover surfaces as necessary to provide a smooth, opaque surface of uniform finish, color, appearance, and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections will not be acceptable.

F. Transparent (Clear) Finishes: Use multiple coats to produce a glass smooth surface film of even luster. Provide a finish free of laps, runs, cloudiness, color irregularity, brush marks, orange peel, nail holes, or other surface imperfections.

G. Provide satin finish for final coats.

H. Stipple Enamel Finish: Roll and redistribute paint to an even and fine texture. Leave no evidence of rolling, such as laps, irregularity in texture, skid marks, or other surface imperfections.

I. Remove unfinished louvers, grilles, covers, and access panels on mechanical and electrical components and paint separately.

J. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

K. Paint both sides and edges of plywood backboards for electrical equipment before installing backboards and mounting equipment on them.

L. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or repaint work not complying with requirements.

3.5 FINISHING PROCESS EQUIPMENT AND FACILITIES

A. The following process equipment and facilities shall be painted according to this Specification, including, but not limited to, the following:
   1. Headworks Building: Paint control panels, disconnects, transmitters, all new above ground, buried, and immersed piping and fittings, all new valves, pipe supports, exposed ductwork, interior CMU walls, gypsum board walls and ceilings, ladders, hallow metal doors and frames, etc.
   2. Headworks odor control scrubber: Paint all new above ground, buried, and immersed piping and fittings, all new valves, and pipe supports, etc.
   3. Chemical storage and containment area: Paint new above ground, buried and immersed piping and fittings, all new valves and pipe supports, chemical metering pumps and appurtenances, etc.

3.6 CLEANING

A. Cleanup: At the end of each workday, remove empty cans, rags, rubbish, and other discarded paint materials from the site.
   1. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping. Be careful not to scratch or damage adjacent finished surfaces.

3.7 PROTECTION

A. Protect work of other trades, whether being painted or not, against damage by painting. Correct damage by cleaning, repairing, or replacing and repainting, as approved by ENGINEER.

B. Provide "Wet Paint" signs to protect newly painted finishes. Remove temporary protective wrappings provided by others to protect their work after completing painting operations.
   1. At completion of construction activities of other trades, touch-up and restore damaged or defaced painted surfaces. Comply with procedures specified in PDCA P1.

3.8 FIELD QUALITY CONTROL

A. CONTRACTOR shall provide a written report from the manufacturer certifying that paint has been applied in accordance with the manufacturer's requirements

B. Provide ENGINEER with suitable testing materials in order for ENGINEER to carry out alkalinity and moisture tests prior to preparation and application.

C. Provide ENGINEER with the following testing equipment, accurately calibrated, for use by the ENGINEER prior to surface preparation and application.
   1. Tinker and Rasor Model M-1, K-D "Bird Dog", or equal, holiday detector, complete with necessary accessories.
   2. Microtest, Elcometer, or equal, magnetic dry film thickness gauge.
   3. Wet mil paint gauge for use during application.

D. The ENGINEER reserves the right to test surfaces, film thicknesses, and paint products at any time and as often as the ENGINEER deems necessary during the period when paint is being applied.
   1. Any spot measurement found below the required minimum dry film thickness shall be repainted by the CONTRACTOR in accordance with the manufacturer's instructions, at no additional cost to the OWNER.
   2. Do not paint unsatisfactory surfaces until they have been corrected and are in accordance with paint manufacturer's recommendations.

3.9 PIPE COLOR CODING AND IDENTIFICATION SCHEDULE

A. Install plastic pipe markers in accordance with manufacturer's instructions.

B. Install tags with corrosion resistance chain.

C. Locate identification markers and tags at the following locations:
   1. At each branch and riser takeoff.
      a. At each pipe passage through a wall, floor, or ceiling.
      b. On each horizontal and vertical pipe run at 25 foot intervals.

D. Exposed, non-submerged, interior piping shall be color coded and provided with identification markers as follows, unless directed otherwise by the ENGINEER:

Exposed Pipe Labels	Background Colors	Color of Letters
Air Piping:	John Deere Green (AWRF)	Black (AWRF)
Water Lines:		
Water - Potable	Light Blue	Black
Water - Non-Potable	Tan (AWRF)	Black (AWRF)
	Purple (OWRF)	White (OWRF)
Exposed Electrical Conduits:		
120 V / 480 V / 4,160 V (no label)	Match Background Color	None
Fire Quenching Materials:		
Water, Foam, CO2, Halon, Fire Hydrants, including sections of potable water for Fire Dept. access (no label)	Red	None
HVAC Duct Work:	Match Background Color	None
Sample Lines Piping:	Dark Blue	Black
Piping:		
IMLR	Tan (OWRF)	Black (OWRF)
Return Activated Sludge	Dark Brown (OWRF)	White (OWRF)
Odor Control Piping	White (OWRF)	Black (OWRF)
Backwash Washwater	Dark Brown	White
Tank Drain / Sump Drain	Black (AWRF)	White (AWRF)
	Grey (OWRF)	White (OWRF)
Chemical Piping:		
Sodium Hypochlorite	Yellow	Black

E. Exposed piping, as defined earlier in this Specification, shall be color coded as listed above, except submerged pipes and pipes less than 3/8-inch diameter shall be painted the same as the wall or piece of equipment to which it is attached.

F. Positive identification of the contents of a piping system shall be lettered legibly, giving the name of the contents in full or abbreviated form at no greater than 25 foot intervals between markings. Arrows shall be used to indicate direction of flow at no greater than 10 foot intervals. Contents shall be identified by additional details required by the ENGINEER, such as temperature, pressure, etc., as necessary to identify the hazard.

G. Legend shall be brief and applied close to valves or flanges and adjacent to changes in direction, branches, and where pipes pass through walls or floors.

H. Where two or more pipes run parallel, markings shall be applied in the same relative location on each as to be in vertical or horizontal line and present a neat appearance.

I. In case a pipe is in such location that it can be seen only from one direction, such as pipes near a wall, two sets of the code designation shall be applied at each location, placed in two visible quadrants with respect to normal viewing positions.

Minimum Letter Sizes	
O.D. of Pipe (inches)	Height of Letters (inches)
3/4 - 1-1/4	1/2
1-1/2 - 2	3/4
2-1/2 - 6	1-1/4
8 - 10	2-1/2
Over 10	3-1/2

END OF SECTION

SECTION 11285

HYDRAULIC GATES AND STOP LOGS

PART 1 - GENERAL

1.1 SUMMARY

A. CONTRACTOR shall provide all labor, materials, equipment, and incidentals as shown, specified, and required to furnish and install stainless steel gates, and appurtenances.

B. Gate mountings shall be supplied by the gate manufacturer and all other appurtenances shall be provided by the CONTRACTOR.

1.2 SECTION INCLUDES

A. Slide Gates.

B. Sluice Gates

C. Stop Logs.

1.3 REFERENCES

A. American Society of Mechanical Engineers (ASME)
   1. Section IX - Boiler and Pressure Vessel Code - Welding and Brazing Qualifications.

B. American Water Works Association (AWWA)
   1. AWWA C 561 - Fabricated Stainless Steel Gates.

C. American Welding Society (AWS)
   1. D1.6 - Structural Welding Code-Stainless Steel.

D. American Society for Testing Materials (ASTM)
   1. A 276 - Stainless and Heat-Resisting Steel Bars and Shapes, Type 304 and Type 316.
   2. B 584 - Copper Alloy Sand Castings for General Application.
   3. D 1248 - Standard Specification for Polyurethane Plastics Extrusion Materials for Wire and Cable.
   4. D 2000 - Standard Classification for Rubber Products in Automotive Applications.
   5. D 4020 - Standard Specification for Ultra-High Molecular-Weight Polyethylene Molding and Extrusion Materials.

1.4 RELATED SECTIONS

A. Section 01300, Submittals.

B. Section 01640, Materials and Equipment.

C. Section 01650, Starting of Systems.

D. Section 03300, Cast-in-Place Concrete.

E. Section 03600, Grout.

F. Section 09900, Painting (Specifications for surface preparation and shop priming required under Section 11285, Hydraulic Gates, are to be done in conformance with Section 09900, Painting).

G. Section 13447, Electric Motor Actuators.

H. Division 16, Electrical.

I. Division 17, Instrumentation.

1.5 QUALITY ASSURANCE

A. Manufacturer's Qualifications:
   1. Manufacturer shall have a minimum of five years of experience in the production of substantially similar equipment and shall show evidence of satisfactory operation in at least five installations.
   2. All gates shall be the product of one manufacturer.

B. Shop Tests:
   1. Test each gate fully assembled in the vertical position for proper seating.
   2. Fully open and close gate disc in its guide system to ensure that it operates freely.
   3. Operate and test floor stands, bench stands, and motor operators to ensure proper assembly and operation. Motor operators shall be tested by the operator manufacturer prior to shipment.

1.6 SUBMITTALS

A. Descriptive Submittals shall be made in accordance with the Data Reference Symbols defined in Section 01300, Submittals.
   1. Shop Drawings:
      a. Letters of Certification of Compliance on materials, equipment, etc.
      b. Final Certified Drawings showing outline dimensions, foundation layout or mounting information, and other pertinent dimensions.

c. Shop Detail Drawings showing individual sub-assemblies and fabricated pieces with material specifications and other applicable data.
d. Schematic and wiring diagrams of power, control, and piping systems. A detailed description of operation shall be included for each diagram to describe all modes of operation of the system indicated. Where the integrated system requires interlocking and control of other components in normal operation, these components shall be included in the description of operation.
e. General bulletins and catalog cuts describing complete apparatus, including operating principles and fundamentals.
f. Materials of construction of all components.
g. Renewal parts list with diagrammatic or cross-section drawings showing part identification. Material analysis or trades designation for each significant part is to be noted on parts lists or on a separate sheet.
h. Stuffing box sizes; packing sizes; specifications and arrangement; and mechanical seal details, specifications, etc., if furnished in equipment.
i. Deviations from the Contract Documents.

2. O&M Manuals:
a. Final Certified Drawings showing outline dimensions, foundation layout or mounting information, and other pertinent dimensions.
b. Shop Detail Drawings showing individual sub- assemblies and fabricated pieces with material specifications and other applicable data.
c. Installation instructions, operating and/or service manuals, and all other data pertinent to operating or servicing the complete apparatus. Preventative maintenance instructions and recommended frequency.
d. General bulletins and catalog cuts describing complete apparatus, including operating principles and fundamentals.
e. Materials of construction of all components.
f. Renewal parts list with diagrammatic or cross-section drawings showing part identification. Material analysis or trades designation for each significant part is to be noted on parts lists or on a separate sheet.
g. Stuffing box sizes; packing sizes; specifications and arrangement; and mechanical seal details, specifications, etc., if furnished in equipment.
h. Test reports, maintenance data and schedules, description of operation, and spare parts information.
i. Furnish Operation and Maintenance Manuals in conformance with the requirements of Section 01300, Submittals.

B. Field Test Results:
1. Submit a written report giving the results of the field tests required.

C. Lubricant Specification: Furnish a lubricant specification for the type and grade necessary to meet the requirements of the equipment.

D. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

E. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

1.7 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to the site to insure uninterrupted progress of the Work.
   1. Deliver anchor bolts and anchorage devices which are to be embedded in cast-in-place concrete in ample time to maintain the construction schedule.

B. Handle all gates and appurtenances properly, in accordance with manufacturer's recommendations. Gates which are distorted or otherwise damaged will not be acceptable. Protect all steam threads, bolt threads and ends from damage.

C. Store materials to permit easy access for inspection and identification.

D. Store all mechanical equipment in covered storage off the ground and prevent condensation.

1.8 GATE SCHEDULE

A. The Gate Schedule is included at the end of this Section. This schedule is provided for general information on specific gates. In the event of discrepancies between this schedule and the Plans and Specifications, the information on the Plans shall govern.

PART 2 - PPRODUCTS

2.1 MANUFACTURERS

A. Whipps, Inc., Athol, MA

B. Fontaine

C. Golden Harvest, Inc., Burlington, WA.

D. Waterman Industries

E. Or, Approved Equal.

F. The naming of a manufacturer in this Specification is not an indication that the manufacturer's standard equipment is acceptable in lieu of the specified component features. Naming is only an indication that the manufacturer may have the capability of engineering and supplying a system as specified.

2.2 MATERIALS

A. All materials used in the manufacturing of the gates shall be of the best quality used for the purpose of commercial production.

B. General: Design equipment to be suitable for the process and service conditions described below and in the Gate & Stop Log Schedule.
   1. Design gates to safely withstand conditions listed in the Gate and Stop Log Schedule.
   2. Gates and stop logs shall be substantially watertight with leakage less than 0.5 gpm per foot of seating perimeter at design head.
   3. Manual operators shall turn right to close, unless otherwise specified. Operators shall indicate the direction of operation.
   4. Bolts, studs, cap screws, and adjusting screws shall be of ample section to withstand the force created by operation of the gate under a full head of water.
   5. Downward opening gates and stop logs shall be capable of being lowered to an elevation below the invert of the channel or opening.
   6. Gates and stop logs shall open to not less than 6-inches above the maximum water level in the channel in which they are installed.

C. Materials of Construction for Gates:
   1. Stainless Steel: For frame, slide, slide stiffeners, rail, yoke, pedestals, wall brackets, and wall thimbles ASTM A276, Type 316 stainless steel. All metal for gate and wall thimble parts shall have a minimum thickness of 1/4-inch.
   2. Frame, top stiffener, vertical stiffener, center stiffener, seal landing, seal retainer, and stop log lifter shall be made of stainless steel consistent with ASTM A240.
   3. Bronze Casting: For operating nut, thrust nut and lift nut; ASTM B 584 Alloy

4. Bronze Casting: For operating nut, thrust nut, and lift nut, ASTM B584 Alloy 865.
5. All bolts, studs, cap screws, and adjusting screws shall be of Type 316 stainless steel.
6. Bolts and nuts shall have hexagon heads.
7. Gasket material and installation shall conform to manufacturer's recommendations.
8. Disc:
    a. Stainless Steel: Fabricate the slide or disc of ASTM A276, Type 316L stainless steel plate reinforced with structural shapes attached by welding.
    b. Provide reinforcing to limit deflection under full head to not more than 1/360 of the span, or 1/16-inch maximum at seal points, whichever is less.
    c. Extend reinforcing ribs into the guides overlapping the seating surface of the guide.
    d. Disc shall be sized to engage into the guides a minimum of 1-inch on each side.
    e. Weld stem mounting guides to the disc.
9. Disc Guides:
    a. Stainless Steel: Guides shall be of Type 316L stainless steel formed and welded to create a one-piece type construction. using formed plate. Gussets shall be provided to accommodate the load on the frame in unseating head conditions.
    b. Guides shall be designed for maximum rigidity in accordance with the latest revision of AWWA C561 to take the load developed at maximum design head and the thrust developed during gate operation, including the stall torque of the electric actuator, under maximum head.
    c. Guides shall extend beneath the opening a sufficient amount to completely support the disc in the fully open or closed position.
10. Stop Log Guides:
    a. Guides shall be of stainless steel and incorporating a sandwich type construction using plates and structural angles.
    b. Guides shall be designed for maximum rigidity as columns to take the thrust developed during gate operation under maximum head.
    c. Frame design shall allow for embedded mounting with stainless steel anchor bolts and grout. Mounting style shall be as shown on the Contract Drawings.
    d. The gussets shall be provided as necessary to support the guide members in an unseating head condition. The gussets shall extend to support the outer portion of the frame guides and shall be positioned to ensure that the load is transferred to the anchor bolts.
    e. An invert member shall be provided across the bottom of the guides. The invert member shall be of the flushbottom type. Frame mounted seals are not acceptable.
11. Stem:

a. Operating stems shall be of Type 316 stainless steel and designed as specified below. Stems shall have a minimum diameter of 1-1/2 inches.
b. Design stem to transmit in compression at least 2-1/2 times the rated output of the operating mechanism with an 80 lb effort on the crank or handwheel.
c. Determine the critical buckling load using the Euler column formula, using C = 2. Where hydraulic cylinder lifts are used, the stem design force shall not be less than 1.25 times the output thrust of the hydraulic cylinder with a pressure equal to the maximum working pressure of the hydraulic fluid supply. Where electric motor driven lifts are used, the stem design force shall not be less than 1.25 times the output thrust of the unit in the stalled motor condition.
d. Stems shall have a slenderness ratio (L/R) less than 200.
e. Threaded portion of the stem shall have machined cut or machine rolled threads of the Acme type, having a surface roughness finish of 16 micro-inches or less. Join stems of more than one section by stainless steel couplings threaded and keyed, or bored and pinned, to the stems. All threaded and keyed couplings of the same size shall be interchangeable. Provide rising stems with an adjustable stop collar on the stem on manually operated gates.
f. Connect the stem to the disc by means of a bolted connection with a minimum of two attachment bolts.

12. Yoke (For Self Contained Type Gates):
    a. Furnish tops of the extended guides with a yoke for mounting of the lifting device.
    b. Construct the yoke of structural shapes of sufficient strength to take the full thrust created by operating the gate under the maximum specified head.
    c. Attach the yoke to the framework by bolting or welding so as to permit removal of the gate slide and stem.
13. Lower Seals:
    a. Mount a specially shaped resilient neoprene seal on the bottom of the disc or guide frame to provide flush-bottom closure for gates.
    b. Shape of the seal shall produce a seating surface having a minimum width of 3/4-inch, and the seal will extend beyond the seating surface of the gate frame.
    c. Vertical face of the seal shall be in contact with the seating surface of the guide to provide a proper seal at the corners.
14. Side and Upper Seals:
    a. Side and upper seals shall be self-adjusting seals with compression cord fabricated from ultra high molecular weight (UHMW) polyethylene or UHMW polymer. Weir gates to have the self-adjust seal on the bottom versus top for slide gates. UHMW bearing strips shall be mechanically retained to lock seat in place. Elastomeric seals such as J-Seals and Crown seals or adjust seal designs are not acceptable.
15. Stop Log Seals:

a. Each stop log shall be outfitted with a continuous resilient lip seal along the bottom and both sides to restrict leakage in accordance with the requirements listed in this specification.
b. Vertical face of the seal shall be in contact with the seating surface of the guide to provide a proper seal at the corners.
c. The continuous lip seal shall be constructed of urethane or rubber and shall mechanically retained to the stop log.
d. The lip seal shall be activated by a combination of the weight of the stop log and the differential water pressure, which pushes the seal against the inside the groove assembly.
e. Stop logs that utilize rubber "J" seals or "P" seals are not acceptable.
f. Seals shall be place at the invert of each stop log providing a leak proof barrier. Seal retainers shall be made of 316 stainless steel.

16. Lifters:
a. One stop log lifter shall be provided for each different guide frame width
b. the lifter shall be constructed of stainless steel and shall be outfitted with UHMW guide bars and stainless steel fasteners.
c. The lifter shall be provided with lifting hooks designed to engage the slots in the top of the stop logs. A lanyard release will be incorporated into the design.
d. The lifter shall be capable of installing and removing all stop logs of the same width whether they are installed or at the operating floor level.

2.3 APPURTENANCES

A. Stem Guides:
1. Guides shall be adjustable in two directions and shall be spaced so that stems have a maximum unsupported length of 84-inches.
2. Anchor bolts for stem guides shall be Type 316 stainless steel.

B. Anchor Bolts:
1. Provide Type 316 stainless steel anchor bolts as required for stem guides, floorstands, and all equipment or appurtenances which must be secured to concrete walls or floors. Anchor bolts shall be of ample size and strength for the purpose intended, and shall be furnished by the manufacturer. Anchor bolts shall be hooked, and provided for direct embedment during placement of concrete. Anchor bolts shall conform to the requirements of Section 05051, Anchor Bolts, Toggle Bolts and Concrete Inserts.

C. Stem Cover:
1. Furnish all stems with a clear polycarbonate or butyrate plastic pipe stem cover. Covers shall be furnished with a cast aluminum adaptor for mounting covers to floor stands. Stem covers shall be designed and furnished with gasketing and breathers to eliminate water intrusion into operators and condensation within the covers.

2. Stem covers shall have with legible markings showing as a minimum the gate position at 1/4 open, 1/2 open, 3/4 open and full open.

D. Electric Operators:
   1. Electric motor operators shall be furnished as shown on the Slide Gate Schedule, in accordance with the requirements of Section 11200, 480 Volt Motor-Operated Valve and Gate Actuators.

E. Identification: Identify each gate with a stainless steel manufacturer's nameplate stamped with the approved designation as shown in the Gate Schedule, below. Manufacturer's nameplate shall be permanently fastened to the gate at the factory.

2.4 SURFACE PREPARATION AND PAINTING

A. Clean, prime coat, and finish coat ferrous metal surfaces of equipment in the shop in accordance with the requirements of Section 01600, General Equipment Provisions, and Section 09900, Painting.

B. Coat machined, polished and non-ferrous surfaces bearing surfaces and similar unpainted surfaces with corrosion prevention compound which shall be maintained during storage and until equipment begins operation.

C. Surface preparation and painting shall conform to Section 09900, Painting.

D. Certify, in writing, that the shop primer and coating system conforms to the requirements of Section 09900, Painting.

2.5 SPECIAL TOOLS

A. Furnish two sets of any special tools required for normal operation and maintenance.

2.6 LUBRICANTS

A. Furnish Food grade oil and grease meeting NSF 61 for water applications as required for initial operation. Use products recommended by the manufacturer.

2.7 GATE AND STOP LOG SCHEDULE

A. Schedule 11285 is the Gate and Stop Log Schedule. Conform to type, size, operation and other data specified, unless otherwise approved by ENGINEER.

B. Provide all gates as shown on the Drawings and listed in the Gate Schedule.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Gates shall be installed in accordance with manufacturer's recommendations.

B. Gates shall be installed at the respective location as shown on the Plans.

C. Gate stems shall be plumb and vertical. Each gate shall be adjusted for smooth and easy operation.

D. Brace guides and frames during placement of concrete.

E. Set anchor bolts in accord with approved manufacturers drawings.

F. Provide minimum of 1-inch of non-shrink grout below all floor stands and between gate frame and wall on wall mounted gates.

G. Adjust all parts and components as required to provide correct operation.

3.2 FIELD TESTS

A. After CONTRACTOR and ENGINEER have mutually agreed that the equipment installation is complete and ready for continuous operation, CONTRACTOR and a qualified field service representative of the manufacturer shall conduct a functional field test and a leakage test of each gate in the presence of ENGINEER to demonstrate that each gate furnished will function correctly and that maximum permissible leakage is not exceeded.
   1. Functional Tests:
      a. Each gate with appurtenances shall be field tested. Tests shall demonstrate to ENGINEER that each part and all parts together function in the manner intended. All necessary testing equipment and manpower shall be provided by CONTRACTOR at his expense. OWNER will furnish all power, and incidental material and labor required for the tests.
   2. Leakage Tests:
      a. Maximum permissible leakage shall be in accordance with the requirements of Paragraph 2.2.B.2. Excess leakage shall be reduced to meet specified requirements by adjusting the gate or replacement will be required.
   3. In the event that the manufacturer is unable to demonstrate to ENGINEER that his equipment meets the requirements of the tests, the deficient equipment will be rejected and CONTRACTOR shall adjust and/or modify and retest the equipment as often as necessary to meet the specified requirements. No separate payments shall be made for adjustments and/or modifications.

3.3 MANUFACTURER'S FIELD SERVICE

A. A factory employed and trained representative of the manufacturer shall visit the site and provide installation and start-up services, as specified in Section 01650, Starting of Systems. The factory employed representative shall make six visits to the site. The six visits will be split as needed between installation assistance and supervision, checking the completed installation and start-up of the system, and for training on the operation and maintenance of the gates. Trips to include:
   1. Installation supervision: 2 trips, 1 day per plant (AWRF and OWRF).
   2. Dry wall installation inspection and operation: 2 trips, 4 days per plant (AWRF and OWRF).
   3. Wet wall functional and leakage testing: 2 trips, 4 days per plant (AWRF and OWRF).
   4. Training and remaining startup: 2 trips, ½ day per plant (AWRF and OWRF).

B. Equipment Start-up: A factory employed representative of the manufacturer shall visit the site and provide installation and start-up services as specified in Section 01650, Starting of Systems.

C. Training: A factory employed and trained representative of the manufacturer shall visit the site and provide operator training services, in addition to equipment start-up services, as specified in Section 01650, Starting of Systems. A minimum of one day of training and of training will be required.

D. All costs, including travel, lodging, meals, and incidentals, shall be considered as included in the CONTRACTOR'S lump sum bid price.

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GATE / STOP LOGS SCHEDULE

WM = WALL MOUNTED; SC = SELF CONTAINED; NSC = NON-SELF CONTAINED; FB = FLUSH BOTTOM; STD = STANDARD; DO = DOWNWARD; EO = ELECTRIC OPERATOR; MO = MANUALLY OPERATOR

Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
AIRPORT WRF										
FIT-XXX-SLG	DISC FILTER NO.1 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO.2 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO.3 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO.4 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO.5 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO.6 INFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1218.08 / 1224.58	48 x 24	UPWARD	2	4 / 4	STD	EO

GATE / STOP LOGS SCHEDULE

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Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
FIT-XXX-SLG	DISC FILTER EFFLUENT SLIDE GATE	WM / NSC	RECTANGULAR / Y	1212.33 / 1224.58	60 x 48	UPWARD	4	10 / 10	STD	EO
OCOTILLO WRF										
AB-XXX-SLG	IMLR DISCHARGE CHANNEL GATE 1	WM / SC	RECTANGULAR / Y	1189.60 / 1196.60	30 X 36	UPWARD	3	5 / 5	STD	MO
AB-XXX-SLG	IMLR DISCHARGE CHANNEL GATE 2	WM / SC	RECTANGULAR / Y	1189.60 / 1196.60	30 X 36	UPWARD	3	5 / 5	STD	MO
AB-XXX-SUG	ANOXIC INFLUENT CHANNEL GATE 1	WM (on existing thimble) / NSC	RECTANGULAR / Y	1174.85 / 1196.60	36 X 36	UPWARD	3	20 / 20	STD	MO
AB-XXX-SUG	ANOXIC INFLUENT CHANNEL GATE 2	WM (on existing thimble) / NSC	RECTANGULAR / Y	1174.85 / 1196.60	36 X 36	UPWARD	3	20 / 20	STD	MO
AB-XXX-SLG	IMLR DISCHARGE CHANNEL EXPANSION GATE 1	WM / SC	RECTANGULAR / Y	1189.10 / 1196.60	60 X 72	UPWARD	6	6 / 6	STD	MO

GATE / STOP LOGS SCHEDULE

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Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
AB-XXX-SLG	IMLR DISCHARGE CHANNEL EXPANSION GATE 2	WM / SC	RECTANGULAR / Y	1189.10 / 1196.60	60 X 72	UPWARD	6	6 / 6	STD	MO
AB-XXX-SUG	48" DIA MLR INFLUENT PIPE	WM (on existing thimble) / SC	ROUND / Y	1182.60 / 1196.60	48 X 48	UPWARD	4	12 / 12	STD	MO
AB-XXX-SUG	PROPOSED IMLR PUMP FEED CHANNEL	WM (on existing thimble) / SC	RECTANGULAR / Y	1181.10 / 1196.60	42 X 42	UPWARD	3.5	13 / 13	STD	MO
AB-XXX-SUG	PROPOSED MLR FROM FUTURE OXIC BASINS	WM (on existing thimble) / SC	RECTANGULAR / Y	1174.60 / 1196.60	42 X 42	UPWARD	3.5	19 / 19	STD	MO
AB-XXX-SUG	ANOXIC NORTH EFFLUENT TRAIN 1 GATE 1	WM (on existing thimble) / NSC	RECTANGULAR / Y	1188.85 / 1196.60	60X 72	DOWNWARD	6	6 / 6	STD	MO
AB-XXX-SUG	ANOXIC EFFLUENT TRAIN 2 GATE 1	WM (on existing thimble) / NSC	RECTANGULAR / Y	1188.85 / 1196.60	60X 72	DOWNWARD	6	6 / 6	STD	MO

GATE / STOP LOGS SCHEDULE

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Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
AB-XXX-SUG	OWRF - ANOXIC EFFLUENT TRAIN 1 GATE 2	WM (on existing thimble) / NSC	RECTANGULAR / Y	1174.10 / 1196.60	60 X 72	UPWARD	6	18 / 18	STD	MO
AB-XXX-SUG	OWRF - ANOXIC EFFLUENT TRAIN 2 GATE 2	WM (on existing thimble) / NSC	RECTANGULAR / Y	1174.10 / 1196.60	60 X 72	UPWARD	6	18 / 18	STD	MO
AB-XXX-XXX	OWRF - ANOXIC EFFLUENT CHANNEL STOP LOG 1	WM (in channel)	RECTANGULAR / N	1188.10 / 1196.60	84 X 96 (12” x7; 6” x2)	N/A	N/A	6 / 6	N/A	N/A
AB-XXX-XXX	OWRF - ANOXIC EFFLUENT CHANNEL STOP LOG 2	WM (in channel)	RECTANGULAR / N	1188.10 / 1196.60	84 X 96 (12” x7; 6” x2)	N/A	N/A	6 / 6	N/A	N/A
SC-XXX-SLG	SPLITTER BOX INVERTED WEIR GATE 1	WM / SC	RECTANGULAR / N	1190.89 / 1194.60	60 X 30	DOWNWARD	2.5	2.5 / 2.5	STD	MO
SC-XXX-SLG	SPLITTER BOX INVERTED WEIR GATE 2	WM / SC	RECTANGULAR / N	1190.89 / 1194.60	60 X 30	DOWNWARD	2.5	2.5 / 2.5	STD	MO

GATE / STOP LOGS SCHEDULE

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Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
SC-XXX-SLG	SPLITTER BOX INVERTED WEIR GATE 3	WM / SC	RECTANGULAR / N	1190.89 / 1194.60	60 X 30	DOWNWARD	2.5	2.5 / 2.5	STD	MO
SC-XXX-SLG	SPLITTER BOX INVERTED WEIR GATE 3	WM / SC	RECTANGULAR / N	1190.89 / 1194.60	60 X 30	DOWNWARD	2.5	2.5 / 2.5	STD	MO
SC-XXX-SLG	SPLITTER BOX	WM / NSC	RECTANGULAR / Y	1184.60 / 1194.60	24 X 24	UPWARD	2	8 / 8	STD	MO
FIT-XXX-SLG	DISC FILTER NO. 1 INFLUENT CHANNEL	WM / NSC	RECTANGULAR / Y	1183.20 / 1188.41	48 X 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO. 2 INFLUENT CHANNEL	WM / NSC	RECTANGULAR / Y	1183.20 / 1188.41	48 X 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO. 3 INFLUENT CHANNEL	WM / NSC	RECTANGULAR / Y	1183.20 / 1188.41	48 X 24	UPWARD	2	4 / 4	STD	EO
FIT-XXX-SLG	DISC FILTER NO. 4 INFLUENT CHANNEL	WM / NSC	RECTANGULAR / Y	1183.20 / 1188.41	48 X 24	UPWARD	2	4 / 4	STD	EO

GATE / STOP LOGS SCHEDULE

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Equipment Number	Gate / Stop Logs Location	Mounting Style / Frame Type	Shape of Wall Opening / Top Seal (Y/N)	Invert (ft) / Operating Floor Elevation (ft)	Size (WxH, in)	Gate Opening Direction	Min Gate Travel (ft)	Seating / Unseating (ft)	Type of Closure	Operator
FIT-XXX-SLG	COMMON FILTER INFLUENT CHANNEL 1	WM / SC	RECTANGULAR / N	1179.10 / 1188.41	48 X 84	UPWARD	7	7 / 7	FB	MO
FIT-XXX-SLG	COMMON FILTER INFLUENT CHANNEL 2	WM / SC	RECTANGULAR / N	1179.10 / 1188.41	48 X 84	UPWARD	7	7 / 7	FB	MO
FIT-XXX-SLG	FILTER BYPASS CHANNEL GATE	WM / SC	RECTANGULAR / N	1179.10 / 1188.41	48 X 60	UPWARD	5	5 / 5	FB	MO
FIT-XXX-SLG	FILTER BYPASS STOP LOGS	WM (in channel)	RECTANGULAR / N	1184.00 / 1188.41	48 X 48 (12” x3; 6” x2)	N/A	N/A	4 / 4	N/A	N/A
FIT-XXX-SLG	COMMON FILTER EFFLUENT CHANNEL STOP LOGS	WM (in channel)	RECTANGULAR / N	1172.92 / 1188.41	48 X 120 (12” x9; 6” x2)	N/A	N/A	10 / 10	N/A	N/A

END OF SECTION

SECTION 11400

DISC FILTER SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. The CONTRACTOR shall supply all tools, equipment, materials, and supplies, and shall perform all labor required to complete the installation of the Disc Filter System as indicated on the Contract Drawings and specified herein to provide a fully operational Disc Filter System. The Disc Filter System shall be rated for an average flow of 27 MGD with a peak flow of 33 MGD at the Airport WRF and an average flow of 11.4 MGD with a peak flow of 18 MGD at the Ocotillo WRF.

B. Filter units to be installed in concrete tank(s) as shown on the Drawings and/or specified within include the following components:
   1. Disc Filter System including, but not limited to, the following:
      a. Centertube Assembly with Cloth Media Discs.
      b. Drive Assembly.
      c. Influent Weir.
      d. Basin Mounting Brackets and Hardware.
      e. Electrical Controls and Internal Components.
   2. Filter Backwash and Solids Wasting Assembly including, but not limited to, the following:
      a. Backwash/Solids Waste Pump Assembly.
      b. Valves.
      c. Pressure Transducer Assembly.
      d. Float Switch.
      e. Vacuum Transmitter.
      f. Vendor Control Panel.

1.2 RELATED SECTIONS

A. Section 01010, Summary of Work.

B. Section 01300, Submittals.

C. Section 01640, Materials and Equipment.

D. Section 01650, Starting of Systems.

E. Section 01660, Field Tests of Equipment.

F. Section 11285, Hydraulic Gates.

G. Section 11295 – Hydraulic valves.

H. Section 13447, Electric Motor Actuators.

I. Division 16, Electrical.

J. Division 17, Instrumentation.

K. Section 17454, Operation and Control Description.

1.3 REFERENCES

A. Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified.
   1. American Gear Manufacturers Association (AGMA).
   2. Institute of Electrical and Electronic Engineers (IEEE):
      a. 841 – IEEE Standard from Petroleum and Chemical Industry – Severe Duty Totally Enclosed Fan-Cooled (TEFC) Squirrel Cage Induction Motors – Up to and Including 370 kW (500 hp).
   3. National Electrical Manufacturer's Association (NEMA).

1.4 SYSTEM DESCRIPTION

A. Provide a Disc Filter System that operates with an outside-in flow pattern to remove solids from the incoming secondary effluent wastewater stream. Each filter unit shall be capable of performing the backwash cycle without interrupting the filtration process. Each filter unit shall consist of the filter centertube and disc assembly, filter drive assembly, two backwash/solids waste pumps, vendor supplied control panel, and necessary valves, piping, and other appurtenances.

1.5 SUBMITTALS

A. Shop Drawings: Submit for approval the following (one copy per plant – AWRF and OWRF)):
   1. Letters of Certification of Compliance on materials, equipment, etc.
   2. Detailed specifications and drawings as specified in Section 01300 containing complete piping and flow diagrams of the proposed installation, including dimensions, weights, and complete parts lists. Drawings shall show proposed anchorage of equipment and appurtenances and equipment relationship to other parts of the work including clearances for installation.
   3. Field assembly instructions, assembly drawings and/or diagrams, detailed reference drawing lists, and lists of assembly details.
   4. List of materials, list of equipment (with model number, size, weight), including a complete list of parts and supplies with current unit prices and sources of supply. List of parts recommended by the Manufacturer to be replaced after 1 and 3 year(s) service. List of special tools for each type of

equipment furnished including special tools necessary for adjustment, operation, maintenance, and disassembly.

5. Installation instructions, operating and/or service manuals, and all other data pertinent to operating or servicing the complete apparatus. Preventative maintenance instructions and recommended frequency.
6. Wiring and control schematics and control logic diagrams for all electrical and control components furnished.
7. A complete process description detailing all process parameters.
8. Documentation that the manufacturer has produced, supplied, and placed into satisfactory service, equipment similar to that specified herein.
9. Recommended list of spare parts and safety equipment, along with price and ordering information.
10. Complete data sheet (ISA data sheet) for each instrument supplied.
11. Process and instrumentation diagrams (P&IDs) of the cloth media disc filter system.
12. CONTRACTOR shall submit specification section with check marks next to each section denoting submittal complies with section, or an "X" next to the section denoting a deviation from the specification. Justification for any deviations must also be included.

B. Seismic structural calculations:
   1. Submit seismic structural calculations in conformance with the following requirements:
      a. Design spectral acceleration at short periods. $S_{DS} = 0.19$.
      b. Design spectral acceleration at period of 1-second, $S_{D1} = 0.09$.
      c. Risk Category: III
      d. Component amplification factor, a_p = in accordance with ASCE 7, Tables 13.5-1 and 13.6-1.
      e. Component response modification factor, R_p = in accordance with ASCE 7, Tables 13.5-1 and 13.6-1.
      f. Component importance factor, I_p = in accordance with ASCE 7 Chapter 13.
      g. Seismic Design Category: Category B.
      h. The calculations shall be prepared and stamped by a structural engineer registered in the State of Arizona.

C. Manufacturer's installation instructions:
   1. Installation and checkout instructions including lubrication and initial start-up procedures.
   2. Do not install equipment until all installation instructions have been supplied.

D. No equipment shall be shipped until the ENGINEER approves the Shop Drawings.

E. Shop Test Results: Submit results of routine factory motor tests.

F. Field Test Results: Submit a written report giving the results of the required field tests.

G. Manufacturer's Reports: Submit written report of the results of each visit by a manufacturer's serviceman, including purpose and time of visit, personnel present, tasks performed, and results obtained.

H. Operation and Maintenance Manuals: Submit complete Operation and Maintenance Manuals in conformance with the Operation and Maintenance Manuals Section of Section 01300, Submittals.

I. The MANUFACTURER shall provide a written guarantee detailing filtrate quality. This guarantee shall be based upon laboratory filtration test, and past operating experience. The guarantee is based on past operating experience; documentation of that experience shall be submitted with the proposal.

J. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

K. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

1.6 QUALITY ASSURANCE

A. Manufacturer: Company specializing in the manufacture of products specified in this Section with minimum five years documented experience and at least 15 similar-sized filtration installations in service.

B. Inspection and Testing Requirement: The ENGINEER reserves the right to reject

delivery of any or all pieces of equipment found, upon inspection, to have any or all of the following: tear, cracks, chips, rust, foreign matter, non-standard welding.

C. Shop Tests:
   1. Motor Tests: Perform a routine test on each drive motor at the manufacturer's factory. The test shall consist of: Running Light Current; Locked Rotor Current; Winding Resistance; High Potential; and Bearing Inspection.

D. Responsibility: To ensure that all the equipment required for the installation of the Disc Filter System is properly coordinated and will function as a unit in accordance with the intent of these Specifications, the CONTRACTOR shall obtain all the equipment specified under this Section, from a single supplier in whom the responsibility for the proper function of all the equipment, regardless of manufacturer, as an integrated and coordinated system shall be vested. The intent of this paragraph is to establish unit responsibility for all the equipment with the Disc Filter equipment supplier. The use of the word "responsibility" relating to the equipment supplier is in no way intended to relieve the CONTRACTOR'S ultimate responsibility for equipment coordination, installation, operation, and guarantee.

E. The CONTRACTOR shall guarantee the Disc Filter System as required under the General Conditions, and as specified herein. If, during the guarantee period, the Disc Filter System fails or does not meet any of the specified requirements or test criteria herein, the CONTRACTOR shall correct such deficiencies as may be necessary to meet these requirements and criteria, and at no additional cost to the OWNER. The ENGINEER must first review any proposed remedial measures before any work is done.

1.7 WARRANTY

A. The manufacturer shall warrant the Disc Filter System being supplied to the OWNER against defects in workmanship and material for a period of one year under normal use, operation, and service after acceptance of the system installation by the OWNER. The warranty shall cover parts and labor and shall be in printed form.

PART 2 - PRODUCTS

2.1 GENERAL

A. The Disc Filter System equipment covered by these Specifications shall call attention to certain features but may not cover all details of the construction of the media filter system. Ancillary and accessory devices, within the confines of the manufacturer's scope, necessary for the treatment system performance shall be included by the manufacturer whether specified or not.

B. Concrete tanks as shown on the Drawings and/or specified within.

C. All structural steel shall conform to "Standard Specifications for Structural Steel of the A.S.T.M.".

D. All equipment shall be designed for continuous, 24 hour operation, and all parts of the mechanism shall be amply proportioned for all stresses, which may occur during fabrication, assembly, and operation.

E. All anchor bolts shall be 316 SS stainless steel and shall be of ample size and strength of the purpose intended. The disc filter manufacturer shall furnish with the equipment all anchor bolts. The CONTRACTOR shall install the anchor bolts in accordance with the manufacturer's instructions.

F. All wetted parts to be 316 stainless steel, FRP, polyacetal, or polypropylene. No carbon steel allowed.

G. All parts above the water line associated with the support steel, platforms, and handrails to be aluminum. No painted carbon steel allowed.

H. Aluminum grating and Aluminum Checker Plate shall conform to Sections 05530 Aluminum Grating and 05532 Aluminum Checkered Plate, Respectively.

2.2 MANUFACTURERS

A. Acceptable Manufacturers:
   1. Aqua-Aerobic Systems,
   2. Five Star Filtration,
   3. Or approved equal.

B. The naming of a manufacturer in this Specification is not an indication that the manufacturer's standard equipment is acceptable in lieu of the specified component features. Naming is only an indication that the manufacturer may have the capability of engineering and supplying a system as specified.

2.3 DESIGN CRITERIA & REQUIREMENTS

A. Design Criteria:
   1. Treatment capacity:

Parameter	AWRF	OWRF
Number of Units	(5+1)	(3+1)
Total Average Daily Flow (MGD)	27	11.4
Total Peak Hourly Flow (MGD)	33	18
Rated Peak Flow for Each Unit (MGD)	6.6	6.0
Capacity per Filter:		

a) Average Daily Flow (MGD)	5.4	3.8
b) Peak Hourly Flow (MGD)	6.6	6.0
Filter Loading Rate:		
a) Average Daily Flow (gpm/ft^2)	4.98	4.09
b) Peak Hourly Flow (gpm/ft^2)	6.1	6.5
Maximum Headloss through Filter (in.)	18	18

2. Influent Characteristics:

Parameter	AWRF	OWRF
Maximum Total Suspended Solids (mg/l)	20	20
Average Total Suspended Solids (mg/l)	10	10

3. Effluent Characteristics:
   a. The effluent characteristics from the Disc Filter units shall meet the following average day limit under stated treatment capacity and influent characteristic conditions:
      1) State of Arizona Class A+ Reclaimed Water.
      2) 24-hour composite average turbidity: 2 NTU or less.
      3) Anytime Maximum Turbidity: 5 NTU.
      4) Total suspended solids: 5 milligrams per liter or less (24-hour composite average).

B. Design Requirements:
   1. Manufacturer will provide the following components as listed in his proposal. The CONTRACTOR shall provide any additional items required for a complete functioning filters.

Component	AWRF	OWRF
Center Tube Assemblies	6	4
Drive System Assemblies	6	4
Cloth Filter Media Assemblies	6	4
Influent Weir Boxes	6	4
Backwash Pumps (2 per Filter), vacuum gauge and transducer, pressure gauge, 3-inch ball valves	12	8
Backwash System Assemblies	6	4
External Piping Assembly Kits	6	4
Pressure Transducer Assemblies	6	4
Float Switch and Brackets	6	4
Backwash Valves with Electric Actuators	7 per filter (total of 42 backwash valves)	6 per filter (total of 24 backwash valves)
Solids Valves with Electric Actuators	2 per filter (total of 12 solids valves)	1 per filter (total of 4 solids valves)
Vendor Control Panels	6	4
Vendor Power Panels	6	4

2. Additional equipment and appurtenances required by the manufacturer.
3. Fit in space as indicated on the Drawings.
4. Align with piping as indicated on the Drawings.
5. All components shall be suitable for outdoor installation, including, but not limited to, controls, wiring and electrical devices, valve operators, materials, piping, and valves.

C. Prefabrication:
1. Manufacturer and CONTRACTOR shall coordinate all instrumentation and other device supports to be fabricated with the cloth media filter system and include these supports on the submittal drawings to the ENGINEER.
2. Submittal shall include preliminary program sequences for PLC as described herein. Final program sequences shall be submitted for acceptance prior to installation.

D. Provide supports for piping, instrumentation, and other equipment mounted within, against or adjacent to the cloth disc filter units. Piping supports external to the filter units shall be provided by the CONTRACTOR.

2.4 COMPONENTS OF CLOTH MEDIA DISC FILTER SYSTEM

A. Material:
   1. Stainless steel components shall be 316 stainless steel as specified in this Section. Use 316L for welded stainless steel.
   2. Surface treatment of stainless steel: All stainless steel components and subassemblies shall be acid passivated after fabrication and welding per Section 05500, Metal Fabrications for corrosion resistance and to provide a superior finish.

B. Drive assembly:
   1. The drive assembly shall consist of gearbox, drive sprocket, drive chain, and a chain guard. Belt drive systems or systems with multiple drive units per filter shall not be acceptable.
   2. Gearbox: Parallel in-line helical-type, AGMA Class I drive motor rated for 460 volt, 3 phase, 60 Hertz. See table below and Refer to Section 16225, Electric Motors 250 Horsepower or Less for additional motor requirements.

Gearbox Parameter	AWRF	OWRF
Power (HP)	1	0.75
Output Speed (RPM)	4.4	4.8

   3. Drive sprocket: Nylon.
   4. Chain: Acetal with Type 316 stainless steel link pins.
   5. Chain guard: Type 316L stainless steel.

C. Centertube assembly:
   1. Each center tube assembly shall include a Type 316L minimum 3/16-inch thick stainless steel center tube weldment, driven sprocket, wheel assemblies, and frame and cloth assemblies.
   2. Effluent port seal: Include a chlorine resistant Viton V-ring effluent port seal, or equal.
   3. Drive sprocket: Multi-segment U.H.M.W. polyethylene.
   4. Fasteners: Type 316 stainless steel.

D. Mounting brackets and hardware:
   1. Each filter basin shall be fitted with Type 316 stainless steel mounting brackets to accommodate attachment of the filter components to the basin.
   2. All mounting brackets shall be attached to the basin wall with Type 316 stainless steel wedge anchors and hardware.

3. Through-the-wall spool piping and all filter external piping shall be provided by the CONTRACTOR.

E. Filter cloth assemblies:
   1. General:
      a. AWRF:
         1) Each of the 6 concrete filter basins shall include 14 disc assemblies.
      b. OWRF:
         1) Each of the 4 concrete filter basins shall include 12 disc assemblies.
      c. Each cloth disc assembly shall be comprised of 6 individual segments; each consisting of a cloth media sock supported by an injection molded polypropylene co-polymer frame.
      d. During filtration, the filter assemblies shall operate in a static condition with no moving parts. The filter system shall provide for the collection of filtered solids on the outside of the cloth media surface to allow for the direct contact of cleaning systems. Filtered effluent shall be used for backwash. The filter flow path shall be from the outside of the disc to the inside. Systems with flow paths from the inside to the outside of the disc that collect filtered solids and plastic debris on the interior surfaces of the disc will not be acceptable.
   2. Cloth/frame assemblies:
      a. Shall be constructed such that each segment is easily removable from the center tube, without special tools, to allow for removal and replacement of the cloth at the point of installation. Systems requiring special tools and/or the return of media segments to the factory for replacement shall not be considered.
      b. AWRF:
         1) Each cloth disc assembly shall have a minimum of 53.8 square feet of effective submerged filtration area. Each filter unit shall have a total of 753.2 square feet of minimum effective submerged filtration area.
      c. OWRF:
         1) Each cloth disc assembly at shall have a minimum of 53.8 square feet of effective submerged filtration area. Each filter unit shall have a total of 645.6 square feet of minimum effective submerged filtration area.
      d. Effluent filtration area is defined as only the portion of the disc that is submerged during filtration. Any disc area that is not submerged shall not be considered as effective area.
      e. Each disc shall be divided into no more than 6 segments and shall be easily removable for service.
   3. Cloth Media:
      a. Cloths shall be of chlorine-resistant polyester (PES) fiber pile construction with polyester backing material having a nominal filtration rating of 10 microns to withstand a sodium hypochlorite dosage of 10

milligrams per liter. Granular media and screens having structured identical openings shall not be allowed.

b. The cloth media shall have an active filter depth of 3 to 5 millimeters to provide additional collisions between solids particles and the media within the media depth, resulting in capture of solids across a broader particle range. The cloth depth shall also provide storage of captured solids, reducing backwash volumes while maintaining an operational headloss. Woven mesh or microstrainer type disc media with no filtration depth are not acceptable.

F. Influent Weir Box:

1. Each filter shall include a Type 316 stainless steel influent weir box. The weir box shall be mounted to the filter basin interior using Type 316 stainless steel wedge anchors and hardware. The basin wall must be smooth and plumb to facilitate a quality installation.

G. Influent Gates:

1. Each filter shall include 1 influent gate to be provided by CONTRACTOR. Refer to Section 11285 for gate specification and schedule.
2. Each gate shall include a gate stem extension to raise the actuator approximately 42 inches above the top of the wall. The extension shall be constructed of painted steel. CONTRACTOR shall provide intermediate support bracket and hardware required for mounting of the extension.

H. Backwash/Solids Wasting Assembly:

1. General:
   a. The backwash function shall incorporate a pump that draws filter effluent through the cloth, thereby removing accumulated solids from the cloth surface.
   b. Each backwash/sludge discharge assembly shall include a backwash system assembly, an external piping assembly, and 2 backwash pumps.
2. Backwash system assembly:
   a. Number: 1 assembly per filter.
   b. Each assembly includes.
      1) Backwash shoe assemblies.
      2) Backwash shoe support weldment(s).
      3) 1-1/2-inch wire reinforced flexible hose.
      4) Stainless steel backwash shoe springs.
      5) Stainless steel hose clamps.
      6) Type 316 stainless steel backwash collection manifolds.
      7) Type 316 stainless steel threaded unions.
      8) PVC sludge collection manifolds.
      9) Type 316 stainless steel backwash floor plate(s).
3. External Piping Assembly:
   a. Number: 1 assembly per filter.
   b. The external piping assembly shall include:

1) 0 to 15 psi pressure gauge(s).
2) 0 to 30 inches mercury vacuum gauge(s).
3) Throttling gate valve(s).
4) 2-inch manual ball valve(s).

4. Backwash Pumps:
   a. Manufacturer: Gorman Rupp, model G-R 12B20-B, or equal.
   b. Type: Externally mounted centrifugal pump.
   c. Number: 2 per filter.
   d. Tag Numbers:
      1) AWRF:
         a) Disc Filter No. 1 – BWP-DS1-A
         b) Disc Filter No. 1 – BWP-DS1-B
         c) Disc Filter No. 2 – BWP-DS2-A
         d) Disc Filter No. 2 – BWP-DS2-B
         e) Disc Filter No. 3 – BWP-DS3-A
         f) Disc Filter No. 3 – BWP-DS3-B
         g) Disc Filter No. 4 – BWP-DS4-A
         h) Disc Filter No. 4 – BWP- DS4-B
         i) Disc Filter No. 5 – BWP-DS5-A
         j) Disc Filter No. 5 – BWP-DS5-B
         k) Disc Filter No. 6 – BWP-DS6-A
         l) Disc Filter No. 6 – BWP-DS6-B
      2) OWRF:
         a) Disc Filter No. 1 – BWP-539-130
         b) Disc Filter No. 1 – BWP-539-140
         c) Disc Filter No. 2 – BWP-539-230
         d) Disc Filter No. 2 – BWP-539-240
         e) Disc Filter No. 3 – BWP-539-330
         f) Disc Filter No. 3 – BWP-539-340
         g) Disc Filter No. 4 – BWP-539-430
         h) Disc Filter No. 4 – BWP-539-440
   e. Pump shall be provided with a 2 horsepower, 460 volt, 3 phase, 60 Hertz TEFC motor, and operate at maximum 1,740 revolutions per minute.
   f. Pump shall be rated for 130 gallons per minute at 23 feet total dynamic head.

I. Backwash valves and sludge valve(s):
   1. The 2-inch backwash valves shall be 2 piece, flanged end, ASTM A351 Grade CF8M stainless steel body, 316 stainless steel ball and stem, fullport, with a 115 volt, single phase, 60 Hz, open / close service electric actuator. Valve / actuator combination shall be TCI / RCI (RCI, a division of Rotork), Nibco, or equal. Valve actuator shall include a compartment heater and limit switch feedback to the microprocessor in both the open and closed positions
   2. The 2-inch solids waste valve(s) shall be 2 piece, flanged end, ASTM A351 Grade CF8M stainless steel body, 316 stainless steel ball and stem, fullport, with a 115 volt, single phase, 60 Hz, open / close service electric actuator.

Valve / actuator combination shall be TCI / RCI (RCI, a division of Rotork), Nibco, or equal. Valve actuator shall include a compartment heater and limit switch feedback to the microprocessor in both the open and closed positions.

J. Anchor Bolts:
   1. The CONTRACTOR shall provide anchor bolt calculations per Section 05051, Anchor Bolts, Toggle Bolts, and Concrete Inserts.
   2. The CONTRACTOR shall provide and install anchor bolts for the filters and backwash pumps. Anchor bolts shall be Type 316 stainless steel and conform to Section 05051, Anchor Bolts, Toggle Bolts, and Concrete Inserts.

K. Piping:
   1. Provide all piping, supports, bracing and fitting as required and as shown on submittal Drawings.
   2. Piping shall conform to Section 15065 Thermoplastic Pipe and Accessories requirements.

L. Finishes:
   1. CONTRACTOR shall provide field finishes under provision of Section 09900.

2.5 VENDOR POWER PANEL (VPP) and VENDOR CONTROL PANEL (VCP)

A. Each VPP shall be powered from a separate 480 volt, 3-phase 60 Hertz power source.
   1. VPP shall be rated to withstand the available fault current as indicated on the Single Line Diagrams and the power system study provided by the CONTRACTOR in accordance with Section 16951, Short Circuit, Coordination, and Arc-Flash Hazard Report.

B. VPP Components:
   1. Circuit Breakers and Motor Circuit Protectors:
      a. In accordance with Section 16476, Low Voltage Circuit Breakers and 16474, Motor Control Equipment.
   2. Enclosure and associated components:
      a. In accordance with Section 16160, Enclosures.
      b. NEMA Type 4X enclosure, stainless steel:
         1) Enclosure shall be suitable for floor mounting.
      c. Provide flange-mounted disconnect handle:
         1) Door-mounted rotary handle disconnects are not acceptable.
      d. Provide a 480V/120V 1ph control power transformer (CPT) rated for the applicable loads.
         1) Control power transformer shall be the source of power for the Vendor Control Panel (VCP).
      e. Doors shall have corrosion resistant hinges and latches.
      f. Starter shall be in accordance with Section 16482, Solid State Motor Controllers.

g. Provide heat load calculations for the VPP enclosure. Derate all components as required by the calculations.

C. The VCP shall be powered from the control power transformer installed in the VPP.
   1. Rated to withstand the available fault current as indicated in the power system study provided by the CONTRACTOR in accordance with Section 16951, Short Circuit, Coordination, and Arc-Flash Hazard Report.
      a. Assume a minimum available short circuit current of 10kA.
      b. 2. Provide heat load calculations for the VCP enclosure. Derate all components as required by the calculations.

D. VCP Components:
   1. Front panel controls: Refer to P&IDs
      a. Provide in accordance with Section 16161, Control Panels.
      b. HAND/OFF/AUTO switches.
      c. START and STOP pushbuttons.
      d. RESET pushbuttons.
      e. Status and Alarm pilot lights.
      f. Elapsed Time Meters.
   2. Provide an Allen-Bradley MicroLogix 1400 Programmable Logic Controller (PLC), or approved equal. Submit the following for the proposed PLC system:
      a. Modbus TCP/IP addressing scheme.
      b. PLC I/O and communication configuration.
         1) System interconnection diagram drawing for PLCs, Modbus Plus data highway, Ethernet data highway, and field instrumentation.
         2) The ladder logic control programs shall reside in the PLCs. The program shall consist of software relay and attendant logic control
      c. Panel and enclosure plans, sections, and details.
      d. Access opening locations and required clearances for each panel and enclosure.
      e. Mounting plates and details for input and output chassis.
      c. Enclosure internal wiring and terminal blocks.
         1) Tabular Input and Output (I/O) listing, including the following data:
            a) Each I/O point, chassis number, module number, module I/O point number, name of I/O device.
            b) Instrumentation tag number of the I/O device in the Contract Documents.
            c) Electrical characteristics of the I/O signal.
            d) PLC internal address of each I/O.
   3. I/O Expansion Modules:
      a. Per signal requirements shown in the P&IDs, submit details of required quantities of DI, DO, AI & AO expansion modules.
      b. Analog inputs shall have a minimum of 12 bits resolution. Analog outputs

c. shall have a minimum of 12 bits resolution. Analog input modules shall be configurable for 4 to 20 mA DC, or 1 to 5 VDC signals. Analog output modules shall be selectable for 4 to 20 mA DC, or 1 to 5 volt DC signals. Provide external or user power as needed.
d. Provide a minimum of 10% spare I/O of each type connected to terminals for future expansion.

4. Power Supply: The power supply shall provide power for the processor and I/O modules.
   a. Power Supply shall be rated for (100-240) VAC, 60 Hz.
   b. Based on the heat load calculations of the VCP enclosure submit derating calculations of the power supply module.
   c. Power supply module shall be rated for a minimum inrush current of 25A for 8ms @ 120VAC, and 40A for 4ms @240VAC.
   d. The power supply shall have a hold-up time (the time the system is operational during a brief power loss), typically between 20 milliseconds and 3 seconds.
5. Provide a 6.5-inch Allen Bradley PanelView Plus 7 700, or approved equal Operator Interface Terminal (OIT). For the OIT, submit the following:
   a. Manufacturer's literature showing:
      1) Physical characteristics, dimensions, and weights.
      2) Mounting and installation requirements.
      3) Wiring information including power requirements and communication capabilities and cabling information.
      4) Available memory and screen storage information.
      5) Recommended spare parts.
      6) OIT screen development software information including:
         a) Minimum computer memory requirements for installation and use.
         b) Communication ports and cables to download OIT programs.
   b. Proposed OIT screens showing the following:
      1) Number of proposed screens.
      2) Proposed color and graphics standards for OIT screen development.
      3) Menu tree showing how the operator will access all screens.
      4) Description of each screen listing control and display points and indicating what actions the operator may perform on the screen.
6. Circuit Breakers and Motor Circuit Protectors:
   a. In accordance with Section 16476, Low Voltage Circuit Breakers and 16474, Motor Control Equipment.
7. Enclosure and associated components:
   a. In accordance with Section 16160, Enclosures
   b. NEMA Type 4X enclosure, stainless steel.
      1) Enclosure shall be suitable for wall mounting.
   c. Provide flange-mounted disconnect handle:
      1) Door-mounted rotary handle disconnects are not acceptable.
   d. Doors shall have corrosion resistant hinges and latches.
8. Remote monitoring and control. Refer to P&IDs for additional requirements.

a. Provide isolated 120VAC dry relay contact outputs for the following:
    1) Filter Drive Unit.
    2) Backwash Pumps.
    3) Backwash Valves Open & Close Commands
    4) Solids Waste Valves Open & Close Commands
b. Accept 120VAC inputs for the following:
    1) Filter Drive Unit Statuses and Alarms.
    2) Backwash Pump Statuses and Alarms.
    3) Valve Statuses.
    4) Filter Basin Level High.
    5) Inlet Gate Closed.
    6) Filter Turbidity Level High
c. Accept 4-20 mA (or 1-5 VDC) inputs for the following:
    1) Filter Basin Level.
    2) Filter Turbidity Level.
    3) Backwash Pumps Inlet Pressure

9. Storage and Downloading of PLC Programs:
    a. The PLC shall be programmable through an USB port or Ethernet/IP connected to a personal computer through a standard cable. The PLC programming software shall be provided to the OWNER with the user's manuals, original diskettes, and licensing agreement for registration. Cables, adapters, connectors, or other hardware required to connect to the PLC shall be provided to the OWNER.
    b. The PLC programming software shall enable the user to write the PLC
    c. program on-line or off-line. The software shall include utilities to manage PLC program files, document and print the programs, configure the programming environment, monitor and force the PLC addresses while on-line, and configure the PLC memory and addressing structure.
    d. Provide software support and debugging time for a period of 30 days after start-up of the equipment under PLC control.

2.6 INSTRUMENTATION

A. Manufacturer shall furnish the following components as a part of the Disc Filter System:
    1. Pressure based level transducer (1 per filter): Manufacturer standard supply.
    2. High-level float (1 per filter): Manufacturer standard supply.
    3. Pressure gauge (2 each per filter): Manufacturer standard supply.
    4. Vacuum gauge and transducer (2 each per filter): Manufacturer standard supply.

2.7 CONTROLS

A. The cloth media disc filter system vendor supplied control panel(s) shall be supplied by the cloth media disc filter system manufacturer, conform to the requirements of Section 16161, Control panels, provide for the functionality

described in Section 17454 Control Descriptions and as shown on the Electrical and Instrumentation sheets, and conform to the requirements as described herein.

1. Dry contacts shall be provided for the signals as shown on the control schematics in the electrical sheets.
2. Provide six additional spare dry contacts.
3. Provide main breaker disconnect, fuse, fuse block, and starters.
4. Provide engraved nameplates for all devices on each vendor supplied control panel.
5. Provide an engraved nameplate that identifies each local control panel with the panel name and equipment number as listed in Section 01800, Equipment Schedule.
6. Provide engraved nameplates that identify each piece of equipment to be controlled by each local control panel, with the name and equipment number as listed in Section 01800, Equipment Schedule.
7. The Disc Filter System manufacturer shall submit, during Shop Drawing review, an engraved nameplate legend that must be approved by the ENGINEER. The ENGINEER shall approve or reject the nameplate legend at the ENGINEER'S discretion.
8. Provide all required wiring, electrical interlocks, relays, and other miscellaneous devices.

B. The vendor supplied control panel shall be factory tested prior to shipment.

C. The Disc Filter System vendor supplied control panels shall be mounted at locations in accordance with the Electrical Drawings.

D. Provide the following panel drawing documentation:
   1. Provide drawing copies in the following format:
      a. Hard Copy - B Size - 11” X 17”.
      b. Soft Copy in .DWG.
   2. The panel drawing documentation package consists of the following drawings types arranged in the following order. a. Cover Sheet.
      a. Symbols and Legends 1 – Exterior and Interior Panel Symbols.
      b. Symbols and Legends 2 – Schematic Symbols.
      c. Front Panel Elevation.
      d. Interior/Sub Panel Layout.
      e. Terminal Strip Drawings.
      f. Control Schematics.
      g. Analog Loop Diagrams.
      h. Point to Point Discrete Wiring Diagrams.
   3. Drawing Scale:
      a. Provide Front Elevation and Interior/Sub Panel Layout Drawings proportionately correct and to scale. Create all drawings on a D Size layout.
   4. Border and Title Block:
      a. Provide each drawing with a border and title block information.

b. Utilize the border and title block as provided in the Drawing Templates referenced in Section 3.03.A.1

2.8 DELIVERY, STORAGE, AND HANDLING

A. Materials are to be marked or tagged with part number and order number for field assembly requirements.

B. All supports, members, and miscellaneous parts shall be packaged for shipment in such manner to prevent abrasion or scratching.

2.9 SPARE PARTS

A. Furnish and deliver the following spare parts to each facility, carefully boxed or packaged and plainly marked for reordering:
   1. Two filter frame and cloth assemblies.
   2. One backwash/solids waste valve and actuator.
   3. One Viton V-ring effluent port/center tube seal, or equal.
   4. One of each PLC I/O module.
      a. One of each:
         1) Fuse.
         2) Control Relay.
         3) Indicating Light Replacement Bulb.
   5. One cloth repair kit.

B. Special tools: The Manufacturer shall provide special tools if required for normal operation and maintenance.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install Disc Filter System equipment in complete accordance with the manufacturer's instructions and recommendations.

B. The Disc Filter Systems shall be installed under the direction of the system Supplier in strict conformance with the manufacturer's installation instructions and with favorable review of shop drawings. An authorized representative of the Manufacturer shall perform final installation inspection, start-up, calibration, and instruction of operating personnel.

C. The manufacturer shall inspect the installation of all equipment in this Section before start-up in order to verify that the equipment has been properly installed and operates properly as a system and individually. The CONTRACTOR shall coordinate with manufacturer the scheduling of this activity.

D. Installation of all conduits and related components shall adhere to Section 16111, Conduits.

E. Make up piping with a sufficient number of unions to permit ready breaking of lines for maintenance.

F. Support and brace plastic pipe to prevent sagging or overstressing of pipe and connections, and, furthermore, support piping so that no item of piping system transfers load or strain to equipment.

G. Adequately support piping so that operation of valves will not cause pipe to show appreciable movement.

H. Field coat as specified in Section 09900, Painting.

I. Furnish and install all required oil and grease for initial operation.

J. Inspection and testing:
   1. Upon completion of equipment installation by the CONTRACTOR, and prior to equipment testing and start-up, the Manufacturer shall inspect the equipment installation and provide the Owner a letter of certification stating that the equipment has been installed in accordance with manufacturer instruction and recommendations.

3.2 FIELD TESTS

A. After CONTRACTOR and ENGINEER have mutually agreed that the equipment installation is complete, cleaned, and ready for continuous operation, CONTRACTOR and a qualified field service representative of the manufacturer shall conduct a running test of the equipment and controls in the presence of the ENGINEER to demonstrate that the units and their controls will function correctly.

B. All testing shall be performed under the supervision of the Disc Filter System manufacturer's representative. The CONTRACTOR shall conduct all specified tests and shall furnish all power, material, instrumentation, equipment, personnel, etc., for conducting tests as specified herein. The CONTRACTOR shall give the ENGINEER sufficient advance notice of the testing to enable the ENGINEER to witness the tests.

C. The CONTRACTOR shall submit to the ENGINEER a minimum of 14 days prior to the proposed testing date, testing procedures for all tests describing the type of test, test set-ups, procedures, instrumentation, flow rates and all other data and information necessary to describe proposed testing plan.
   1. Running Tests:
      a. Field test each unit together with its controls. Test shall demonstrate to ENGINEER that each part and all parts together function in the manner

intended. All necessary testing equipment and manpower shall be provided by CONTRACTOR at his expense.

b. Prior to applying electrical power to any motor driven equipment, the drive motor shall be rotated by an external source to demonstrate free operation of all mechanical parts.

c. In the event that CONTRACTOR is unable to demonstrate to ENGINEER that his equipment meets the requirements of the above described test, the equipment will be rejected and CONTRACTOR shall adjust and/or modify and retest the equipment as often as necessary to meet the specified requirements, including but not limited to:
   1) Repair any visible leaks.
   2) Test and calibrate all controls, switches, automatic valves, and other instrumentation and control equipment associated with the cloth media filter units as specified in this Section, in accordance with the Manufacturer's printed instruction over the full operating range of the equipment.

d. After equipment, piping, and other necessary incidentals are completed, conduct functional testing and operational testing of the system as specified in Section 01650, Starting of Systems and provide certified test report. Performance test includes:
   1) Demonstrate filters performance per Performance Design Criteria. The sampling information and results shall include the influent characteristics (TSS and NTU) and effluent characteristics (TSS and NTU) to demonstrate that the equipment meets the required performance.

e. Do not affect warranty of the systems by testing.

f. Coordinate testing with functional testing of other equipment.

D. Verify networking communication between the OWNER's control system and the filter network.

E. Upon completion of testing, the CONTRACTOR shall submit to the ENGINEER two copies of full and complete test reports for all tests. Reports shall include description of the units tested, test procedures, test flow rates, backwash cycles, levels and all other data and results as required demonstrating that all items tested meet specified requirements.

F. Compliance with the performance requirements shall be demonstrated through a performance test of 48 hours minimum duration. The test shall be performed with all discs on-line and hydraulic loading rates specified herein. Any filter that fails to operate continuously during the 48 consecutive hour period because of malfunction shall be retested until it completes a continuous 48 hour test.

3.3 MANUFACTURER'S FIELD SERVICE

A. A factory employed and trained representative shall be provided for installation supervision, start-up and test services and operation and maintenance personnel training services. The representative shall make a minimum of three visits per plant (AWRF and OWRF). The first visit shall be a minimum of one day (8 hours on site), for sampling, testing and classifying filter effluent prior to installation of the disc filter equipment. The representative shall bring their own portable composite sampler. The second visit shall be a minimum of two days (8 hours each day), for assistance in the installation of equipment and provide written certification that the installation meets the manufacturer's recommendations. The third visit shall be a minimum of three days (8 hours each day), for checking the completed installation and start-up of the system and for instruction of operations and maintenance personnel. The third visit shall also include sampling, testing and classifying filter effluent after start-up and commissioning of the Disc Filter System to illustrate conformance to the performance requirements identified in this Specification under Section 2.3. Manufacturer's representative shall test operate the system in the presence of the ENGINEER and verify that the Disc Filter System, and Backwash/Solids Waste Assembly conform to requirements. Manufacturer's representative shall revisit the job site as often as necessary until all trouble is corrected and the installation is entirely satisfactory leading to compliance of performance requirements. Sales representatives shall not be acceptable to perform start-up and training functions.

B. Reports: Submit report by manufacturer of each visit to the site that provides complete information on time, schedule, tasks performed, persons contacted, problems corrected, test results, training, instruction, and all other pertinent information.

C. All costs, including travel, lodging, meals, and incidentals shall be considered as included in the CONTRACTOR'S bid price.

END OF SECTION

SECTION 13447

ELECTRIC MOTOR ACTUATORS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes: Electric motor-driven actuators for valves and gates as identified in the valves and gate schedule as MOV or EDR (Electric Discrete Run Open / Run Close Valve Actuator), except for specialty actuators specified with individual valves.

B. Related sections:
   1. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
   2. It is the Contractor's responsibility for scheduling and coordinating the Work of subcontractors, suppliers, and other individuals or entities performing or furnishing any of Contractor's Work.
   3. The following Sections are related to the Work described in this Section. This list of Related Sections is provided for convenience only and is not intended to excuse or otherwise diminish the duty of the Contractor to see that the completed Work complies accurately with the Contract Documents.
      a. Section 11285 - Hydraulic Gates.
      b. Section 11295 - Hydraulic Valves.
      c. Section 11400 - Disc Filters.
      d. Section 16225 – Electric Motors 250 Horsepower or Less.
      e. Section 09900 - Painting.

1.2 REFERENCES

A. American Water Works Association (AWWA):
   1. AWWA C504 - Rubber-Seated Butterfly Valves.
   2. AWWA C542 - Electric Motor Actuators for Valves and Slide Gates.

B. FM Global (FM).

C. National Electrical Manufacturers Association (NEMA):
   1. MG-1 Standard for Electrical motors.

D. Underwriters Laboratories (UL) - UL 674, UL 1004.

1.3 DEFINITIONS

A. NEMA:
   1. Type 4 enclosure in accordance with NEMA 250.

2. Type 4X enclosure in accordance with NEMA 250.
3. Type 7 enclosure in accordance with NEMA 250.

1.4 SUBMITTALS

A. Product data:
   1. Electrical ratings:
      a. Voltage and number of phases.
      b. Starting and running current.
      c. Voltage levels and source for control and status.
   2. Description of integral control interface.
   3. Integral and remote control station components.
   4. Environmental ratings, including NEMA enclosure rating and submergence capabilities.
   5. Gear ratios for both manual and motorized actuation.
   6. Opening and closing directions.
   7. Allowable starts per hour.
   8. List of all included options and accessories.
   9. Full travel times.
   10. Gearbox data including gear ratio, and gearbox efficiency.
   11. Affidavit in accordance with AWWA C542.

B. Shop drawings:
   1. Wiring diagrams:
      a. Include all options and expansion cards furnished with each actuator.
   2. Dimensioned drawings of each valve and actuator combination.
   3. Dimensioned drawings of each valve gearbox.
   4. Electric motor data.

C. Calculations: Submit the following for each valve/gate size and class:
   1. Operating torque calculations.
   2. Maximum torque calculations for seating and unseating.
   3. Maximum operating torque at starting and normal operation.
   4. Indicate factor of safety for all torque calculations.

D. Test reports:
   1. Factory test report and certificate.

E. Manufacturer's instructions:
   1. Include manufacturer's instructions, description of system operation, start-up data and troubleshooting check lists.

F. Operations and maintenance data:
   1. Include manufacturer's literature; cleaning procedures, replacement part lists, wiring diagrams, and repair data.
   2. Include a list of all configurable parameters, and the final values for each.
   3. List of recommended spare parts.

4. List of special tools necessary for proper operation and/or maintenance.
5. Exploded view drawings that illustrate all assemblies, sub-assemblies, and components.
6. Routine test procedures for all electronic and electrical circuits.
7. Troubleshooting chart covering the complete valve and controls/electrical power systems, showing description of trouble, probable cause, and suggested remedy.
8. Certified factory and field-test results.

G. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks (✓) shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the CONTRACTOR, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The ENGINEER shall be the final authority for determining acceptability of requested deviations. The CONTRACTOR shall furnish equipment and/or services as specified if an exception and/or deviation is rejected. The remaining portions of the paragraph not underlined will signify compliance on the part of the CONTRACTOR with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.

H. The CONTRACTOR shall submit the preventive maintenance information package as part of the shop drawing submittal package to the ENGINEER for review and approval. **SHOP DRAWING SUBMITTAL PACKAGE WILL NOT BE APPROVED WITHOUT ACCEPTANCE OF PREVENTIVE MAINTENANCE INFORMATION.**

1.5 QUALITY ASSURANCE

A. Obtain required information from the valve/gate supplier, including but not limited to:
   1. Interface to gate or valve.
   2. Operating range:
      a. Quarter turn or multi-turn.
      b. Required turns for full travel on multi-turn applications.
   3. Direction of rotation for opening and closing.
   4. Maximum and normal torque requirements.

B. All motorized, intelligent actuators shall be the product of a single manufacturer for all valve and gate applications on this project, regardless of gate or valve type, manufacturer, or supplier.

1.6 WARRANTY

A. Refer to Contract Documents.

1.7 SPARE PARTS

A. Provide the following spare parts (minimum 10 percent of total number of actuators of each model type furnished, but not less than 1 for each model of actuator furnished):
   1. Stem nut.
   2. Worm shaft subassembly.
   3. Drive sleeve subassembly.
   4. Complete actuator seal kit.
   5. Actuator gearbox oil (sufficient quantity to fill 4 gearboxes).
   6. Encoder.
   7. Control module.

B. Provide 1 spare motor for each size motor furnished.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable manufacturers for lines 3 inches and smaller:
   1. RCI:
      a. RCEL-005L, with Receptacle (quarter-turn)
   2. Hayward:
      a. Series EJM (quarter-turn).
   3. Rotork:
      a. ROM Series (quarter turn).
   4. Rotork:
      CVA Series (multi- turn).

B. Acceptable Manufacturers for lines 4 inches and larger:
   1. Rotork Controls, Inc.:
      a. IQ (multi-turn).
      b. IQT (quarter-turn).
   2. Limitorque Corporation:
      a. Accutronix MX (multi-turn).
      b. Accutronix QkX (quarter-turn).
   3. Auma:
      a. SA /SAR (multi-turn) with Aumatic AC controls.

b. SG (quarter-turn) with Aumatic AC controls.

4. EIM Corporation.

2.2 MANUFACTURED UNITS

A. Actuators for valves 3 inches and smaller:
   1. Provide actuators complete and operable with all components and accessories required for operation.
   2. Power supply:
      a. 120 VAC.
      b. Valve motion independent of power supply phase rotation.
   3. Size actuator to move valves from full open to closed position within the time indicated in the Motorized Actuator Schedule:
      a. If an operating time is not indicated on the Schedule, size the actuator to move valves at minimum 12 inches per minute under maximum load. Measure rate of closure for valves at maximum diameter of disc, plug, or ball.
   4. Control inputs:
      a. Capable of using discrete 120 VAC.
      b. Isolated inputs capable of operating from external control voltage source
      c. Provide for the following control inputs:
         1) OPEN.
         2) CLOSE.
   5. Status outputs:
      a. Dry contact outputs configured for the functions indicated on the Drawings. Provide the following outputs for all actuators:
         1) FULLY CLOSED.
         2) FULLY OPEN.
      b. All output contacts rated for minimum 3 amps, 120 VAC.
   6. Analog input:
      a. Provide a 4-20 milliamp analog input for analog modulating valves when indicated on the Drawings.
      b. Modulate valve to maintain position based on analog input value.
      c. Maximum input impedance 250 ohms.
   7. Analog output:
      a. Provide an isolated 4-20 milliamp analog output when indicated on the Drawings.
   8. Materials:
      a. Construct motorized actuators of materials suitable for the environment in which the valve or gate is to be installed.
   9. Components:
      a. Motors:
         1) Specifically designed for valve actuator service with high starting torque, totally enclosed non-ventilated construction.
         2) Torque ratings equal to or greater than that required for valve seating and dynamic torques with a 25 percent factor of safety.

3) Rated for operating under the following conditions without exceeding temperature limits with ambient temperature of 40 degrees Celsius.
    a) Continuous operation for 15 minutes or twice the open-to-close operating time (whichever is greater) at normal operating torque or 33 percent of maximum torque (whichever is greater).
    b) 60 starts per hour for open/close service or 1,200 starts per hour for modulating service.

b. Enclosures:
    1) Actuator housing ratings as indicated in the Motorized Actuator Schedule.
    2) Stainless steel external fasteners.
    3) Provide the following minimum enclosure ratings:
        a) NEMA Type 4X for outdoor, wet or corrosive area applications.
        b) NEMA Type 7 certified by FM for Class I, Division 1, Groups C, D, E, F and G, for actuators installed in Class I, Division 1 and 2 areas.

c. Manual Override:
    1) Allen key operation.

d. Gearing: Hardened alloy steel spur or helical gears and self-locking, alloy bronze worm gear set:
    1) Accurately cut to assure minimum backlash.

e. Bearings:
    1) Anti-friction bearing with caged balls or rollers throughout.
    2) Sealed-for-life type thrust bearings housed in a separate thrust base.

f. Drive bushing:
    1) Easily detachable for machining to suit the valve stem or gearbox input shaft.
    2) Positioned in a detachable base of the actuator.

B. Actuators for valves 4 inch and larger:
1. Provide actuators complete and operable with all components and accessories required for operation.
2. Power supply:
    a. Voltage and phases as indicated on the Valve and Gate Actuator Schedule.
    b. Valve or gate motion independent of power supply phase rotation.
3. Size actuator to move gates or valves from full open to closed position within the time indicated in the Valve and Gate Actuator Schedule:
    a. If an operating time is not indicated on the Schedule, size the actuator to move gates or valves at minimum 12 inches per minute under maximum load.
    b. Measure rate of closure for valves at maximum diameter of disc, plug, or ball.
4. Control interface:
    a. Configuration:

1) Provide a non-intrusive, non-contacting interface for configuring all input and output settings, control values, ranges, torque switch settings, valve positions switch settings, and options.
    a) Configurable from a hand-held configuring tool or input devices on the actuator.

b. Local interface, integral to actuator:
    1) Selector switches:
        a) Local-Off-Remote:
            i. Motor actuator operation is prevented with the switch in OFF.
        b) Open-Close:
            i. Controls the valve when Local-OFF-Remote is in LOCAL.
            ii. Spring return to center.
            iii. Configurable between maintained (actuator runs until end of travel, high torque, or a local-stop-remote is switched to STOP) and momentary (actuator stops when lever is released).

c. Control inputs:
    1) Capable of using 120 VAC or 24 VDC inputs.
    2) Controls the valve when local-stop-remote is in REMOTE.
    3) Isolated inputs capable of operating from external control voltage source or internal power supply:
        a) Furnish control power supplies within the actuator.
    4) Provide the following inputs:
        a) OPEN.
        b) CLOSE.
        c) OFF.
        d) OPEN and CLOSE inputs configurable between maintained (actuator runs until end of travel, high torque, or a OFF input) and momentary (actuator stops when command is removed).

d. Status outputs:
    1) Monitor relay output: Dry contact, normally closed, opens when actuator is not in REMOTE or in the event of any internal fault or alarm condition.
    2) Dry contact outputs configured for the functions indicated on the Drawings. Provide the following outputs for all actuators:
        a) FULLY CLOSED.
        b) FULLY OPEN.
        c) Local-Off-Remote in REMOTE position.
    3) All output contacts rated for 5 amps, 120 VAC and 24 VDC.

e. Analog input:
    1) Provide a 4-20 milliampere analog input for analog modulating valves when indicated on the Drawings.
    2) Modulate valve to maintain position based on analog input value.
    3) Maximum input impedance 250 ohms.

f. Analog output(s):
    1) Provide an isolated 4-20 milliampere analog outputs when indicated on the Drawings:
        a) Loop power sourced from the actuator power supply.
        b) Capable of driving into a load up to 500 ohms.
        c) Output proportional to process value(s) indicated on the Drawings.
        d) Valve or gate position.
        e) Operating torque.

2.3 FEATURES

A. Time delay on reversal: Incorporate time delay between stopping actuator and starting in opposite direction to limit excessive current, torque, and heating from instantaneous reversal.

2.4 MATERIALS

A. Construct motorized actuators of materials suitable for the environment in which the valve or gate is to be installed.

2.5 COMPONENTS

A. Motors:
    1. Specifically designed for valve actuator service with high starting torque, totally enclosed non-ventilated construction.
    2. Torque ratings equal to or greater than that required for valve seating and dynamic torques with a minimum of 25 percent factor of safety:
        a. Design requirements for rubber-seated AWWA butterfly valves:
            1) Design valves and actuators for maximum operating torque, in accordance with and using safety factors required in AWWA C504 and AWWA C542:
                a) Valve actuator torque requirement for open-close service: Not less than the required valve-seating and dynamic torques under design operating conditions in accordance with AWWA C504.
                b) Valve actuator torque requirement for modulating service: Not less than twice the required valve dynamic torque under design operating conditions in accordance with AWWA C504.
        b. Design requirements for slide gates, gate valves, knife gate valves, globe valves, and diaphragm valves:
            1) Design valves and actuators for maximum operating torque, in accordance with and using safety factors required in AWWA C542.
            2) Design for the maximum torque and thrust running load over the full cycle.
            3) Maximum torque or thrust rating: The actuator stall torque or maximum thrust output shall not exceed the torque or thrust

capability of the valve or gate, as determined by the valve or gate manufacturer.

3. Capable of being removed and replaced without draining the actuator gear case.
4. Motor bearings shall be amply proportioned of the anti-friction type and permanently lubricated.
5. Rated for operating under the following conditions without exceeding temperature limits with ambient temperature of 40 degrees Celsius:
   a. Continuous operation for 15 minutes or twice the open-to-close operating time (whichever is greater) at normal operating torque or 33 percent of maximum torque (whichever is greater).
   b. 60 starts per hour for open/close service or 1,200 starts per hour for modulating service.
6. Provide the following motor protection features:
   a. Jammed valve (no valve motion detected through a time delay).
   b. High motor temperature (sensed by embedded thermostats).
   c. High torque.
   d. Single phasing protection for 3-phase motors.

B. Enclosures:
   1. Actuator housing ratings as indicated in the Valve and Gate Actuator Schedule.
   2. Stainless steel external fasteners.
   3. Provide seals for each of the following areas:
      a. Between the terminal compartment and the internal electrical elements.
      b. Between the mechanical and electrical portions to protect from the ingress of oil, and to protect the mechanical components of oil from dust and moisture when the electrical terminal is open.
   4. Provide the following minimum enclosure ratings:
      a. NEMA Type 4X for general applications.

C. Position sensing:
   1. Integral with valve actuator.
   2. Gearing: Intermittent type; bronze or stainless steel; grease lubricated; totally enclosed.
   3. Contacts: Heavy duty and silver-plated with wiping action or encoder wheel.
      1. Remote indication contacts: As indicated on the Drawings.
   4. Switches: Adjustable; allowing for trip points from fully open to closed positions of valve travel; not subject to breakage or slippage due to over travel; permits visible verification of switch position without disassembly.
   5. Capable of retaining position and monitoring valve or gate motion when valve is manually actuated and when main power is not present.
   6. Valve range and position switch outputs field adjustable.

D. Torque sensing:

1. Capable of interrupting control circuit in both opening and closing when valve torque overload occurs.
2. Silver-plated contacts.
3. Graduated dials for both open and close directions of travel, each independently adjustable or 0-100 LTD display.
4. Positive means to limit adjustability to avoid exceeding actuator output torque capability with solid-state sensor embedded within the torque transducer.
5. Permits visible verification of switch position without disassembly.
6. Torque shutdown setting: 40 percent to 100 percent rated torque:
   a. Adjustable in 1 percent increments.
7. Capable of interrupting control circuit during both opening and closing and when valve torque overload occurs.
8. Independent of variations in frequency, voltage, or temperature.
9. Provide a temporary inhibit of the torque sensing system during unseating or during starting in mid-travel against high inertia loads.

E. Manual actuators:
   1. Hand wheel for manual operation:
      a. Maximum 80-pound pull on rim when operating gate or valve under maximum load.
      b. Provide pull chain when motorized actuator is located more than 6 feet above floor surface.
         1) Chain shall be of sufficient length to reach approximately 4 feet above the operating level.
         2) Where the chain obstructs an aisle or walkway, provide holdback or other means to ensure chain does not create a nuisance or hazard to operating personnel.
   2. Declutch lever: With padlock, capable of mechanically disengaging motor and related gearing and freeing hand wheel for manual operation.

F. Gearing: Hardened alloy steel spur or helical gears and self-locking, alloy bronze worm gear set:
   1. Accurately cut to assure minimum backlash.

G. Bearings:
   1. Anti-friction bearing with caged balls or rollers throughout.
   2. Sealed-for-life type thrust bearings housed in a separate thrust base.

H. Drive bushing:
   1. Easily detachable for machining to suit the valve stem or gearbox input shaft.
   2. Positioned in a detachable base of the actuator.

I. Lubrication:
   1. Provide totally enclosed actuator gearing with oil filled gear case suitable for operation at any angle.
      a. Suitable for standard SAE80EP gear oil.

2. Actuators requiring special or exotic lubricants are not acceptable.
3. Provide seals for all shafts.

2.6 ACCESSORIES

A. Setting tool:
   1. If required for setting or configuring the actuator, provide a hand-held setting tool.
      a. Furnish 1 setting tool for every 10 actuators.
      b. Capable of communicating with PC-based configuration software, and transferring the following in either direction between the computer and programmer and setting tool, and between the setting tool and actuator.
      c. Actuator configurations:
         1) Capable or storing up to ten different configurations.
      d. Diagnostic data.
         1) Capable of storing 4 complete sets of diagnostic data.

2.7 SOURCE QUALITY CONTROL

A. Factory test:
   1. Test each actuator in the factory, and submit an individual test certificate for each actuator.
   2. Perform a high potential test and record the following information:
      a. Test voltage.
   3. Simulate a maximum and typical valve loads and record the following information:
      a. Current and power factor at maximum and set torque values.
      b. Torque as measured by the actuator.
      c. Actuator output speed or operating time.
   4. Performance testing: Conduct performance test for each actuator simulating valve operating torque from full-open to full-close and from full-close to full-open. The following information shall be recorded during each performance test:
      a. Torque at maximum torque setting.
      b. Current at maximum torque setting.
      c. Test voltage and frequency.
      d. Actuator output speed and operating time for full-open to full-close.
      e. Amperage draw on motors at breakaway and under normal operation.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install actuators in accordance with manufacturer's instructions.

3.2 MOTORIZED ACTUATOR SCHEDULE

A. Provide all actuators required by the Drawings. Major process actuators are listed in the Valve and Gate Actuator Schedule. The schedule does not include all number and types of actuators required for the Project.

B. Abbreviations relating to type:
   1. BFV = Butterfly Valve.
   2. BV = Ball Valve.
   3. PV = Plug Valve.
   4. SG = Slide Gate.
   5. KGV = Knife Gate Valve.
   6. TSV = Telescoping Valve.

C. Abbreviations relating to actuator type:
   1. O/C = Open and Close Service.

D. Abbreviations relating to controls:
   1. MB = Modbus RTU (RS-485).
   2. NET = Manufacturer's proprietary network.
   3. A = Analog (4-20 mA) control, modulating duty.
   4. D = Discrete control, modulating duty.
   5. D-O/C = Discrete Open/Close.

VALVE AND GATE ACTUATOR SCHEDULE									
Equipment Number	**Location**	**Reference DWG**	**Type**	**Size**	**Actuator Type**	**NEMA Rating**	**Voltage**	**Open Time**	**Controls**
AWRF									
EDR-DS1	DISC FILTER NO.1 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
EDR-DS2	DISC FILTER NO.2 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
EDR-DS3	DISC FILTER NO.3 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
EDR-DS4	DISC FILTER NO.4 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
EDR-DS5	DISC FILTER NO.5 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
EDR-DS6	DISC FILTER NO.6 INFLUENT SLIDE GATE	M-1.64	SLG	48”W X 24”H	O/C	4	480/3/60	TBD	A
TBD	DISC FILTER COMMON EFFLUENT CHANNEL SLIDE GATE	M-1.64	SLG	48”W X 60”H	O/C	4	480/3/60	TBD	A
MOV-DS1-BW1	DISC FILTER NO. 1 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1/60	TBD	TBD

MOV-DS1-BW2	DISC FILTER NO. 1 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-BW3	DISC FILTER NO. 1 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-BW4	DISC FILTER NO. 1 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-BW5	DISC FILTER NO. 1 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-BW6	DISC FILTER NO. 1 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-BW7	DISC FILTER NO. 1 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-SW2	DISC FILTER NO. 1 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS1-SW2	DISC FILTER NO. 1 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-SW1	DISC FILTER NO. 2 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW1	DISC FILTER NO. 2 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW2	DISC FILTER NO. 2 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW3	DISC FILTER NO. 2 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD

MOV-DS2-BW4	DISC FILTER NO. 2 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW5	DISC FILTER NO. 2 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW6	DISC FILTER NO. 2 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-BW7	DISC FILTER NO. 2 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS2-SW2	DISC FILTER NO. 2 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW1	DISC FILTER NO. 3 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW2	DISC FILTER NO. 3 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW3	DISC FILTER NO. 3 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW4	DISC FILTER NO. 3 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW5	DISC FILTER NO. 3 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW6	DISC FILTER NO. 3 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-BW7	DISC FILTER NO. 3 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD

MOV-DS3-SW1	DISC FILTER NO. 3 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS3-SW2	DISC FILTER NO. 3 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW1	DISC FILTER NO. 4 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW2	DISC FILTER NO. 4 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW3	DISC FILTER NO. 4 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW4	DISC FILTER NO. 4 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW5	DISC FILTER NO. 4 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW6	DISC FILTER NO. 4 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-BW7	DISC FILTER NO. 4 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-SW1	DISC FILTER NO. 4 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS4-SW2	DISC FILTER NO. 4 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW1	DISC FILTER NO. 5 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD

MOV-DS5-BW2	DISC FILTER NO. 5 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW3	DISC FILTER NO. 5 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW4	DISC FILTER NO. 5 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW5	DISC FILTER NO. 5 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW6	DISC FILTER NO. 5 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-BW7	DISC FILTER NO. 5 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-SW1	DISC FILTER NO. 5 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS5-SW2	DISC FILTER NO. 5 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW1	DISC FILTER NO. 6 BACKWASH VALVE 1	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW2	DISC FILTER NO. 6 BACKWASH VALVE 2	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW3	DISC FILTER NO. 6 BACKWASH VALVE 3	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW4	DISC FILTER NO. 6 BACKWASH VALVE 4	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD

MOV-DS6-BW5	DISC FILTER NO. 6 BACKWASH VALVE 5	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW6	DISC FILTER NO. 6 BACKWASH VALVE 6	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-BW7	DISC FILTER NO. 6 BACKWASH VALVE 7	M-1.64	BAV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-SW1	DISC FILTER NO. 6 SOLIDS WASTE VALVE 1	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
MOV-DS6-SW2	DISC FILTER NO. 6 SOLIDS WASTE VALVE 2	M-1.64	MUV	2-IN	O/C	TBD	120/1 /60	TBD	TBD
OCOTILLO WRF									
EDR-539-101	DISC FILTER NO.1 INFLUENT SLIDE GATE	M-3.44	SLG	48”W X 24”H	O/C	4	480/3 /60	TBD	A
EDR-539-201	DISC FILTER NO.2 INFLUENT SLIDE GATE	M-3.44	SLG	48”W X 24”H	O/C	4	480/3 /60	TBD	A
EDR-539-301	DISC FILTER NO.3 INFLUENT SLIDE GATE	M-3.44	SLG	48”W X 24”H	O/C	4	480/3 /60	TBD	A
EDR-539-401	DISC FILTER NO.4 INFLUENT SLIDE GATE	M-3.44	SLG	48”W X 24”H	O/C	4	480/3 /60	TBD	A
MOV-539-121	DISC FILTER NO. 1 BACKWASH VALVE 1	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-122	DISC FILTER NO. 1 BACKWASH VALVE 2	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	

MOV-539-123	DISC FILTER NO. 1 BACKWASH VALVE 3	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-124	DISC FILTER NO. 1 BACKWASH VALVE 4	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-125	DISC FILTER NO. 1 BACKWASH VALVE 5	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-126	DISC FILTER NO. 1 BACKWASH VALVE 6	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-111	DISC FILTER NO. 1 SOLIDS WASTE VALVE 1	M-3.44	MUV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-221	DISC FILTER NO. 2 BACKWASH VALVE 1	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-222	DISC FILTER NO. 2 BACKWASH VALVE 2	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-223	DISC FILTER NO. 2 BACKWASH VALVE 3	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-224	DISC FILTER NO. 2 BACKWASH VALVE 4	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-225	DISC FILTER NO. 2 BACKWASH VALVE 5	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-226	DISC FILTER NO. 2 BACKWASH VALVE 6	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-211	DISC FILTER NO. 2 SOLIDS WASTE VALVE 1	M-3.44	MUV	2-IN	O/C	TBD	120/1 /60	TBD	

MOV-539-321	DISC FILTER NO. 3 BACKWASH VALVE 1	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-322	DISC FILTER NO. 3 BACKWASH VALVE 2	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-323	DISC FILTER NO. 3 BACKWASH VALVE 3	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-324	DISC FILTER NO. 3 BACKWASH VALVE 4	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-325	DISC FILTER NO. 3 BACKWASH VALVE 5	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-326	DISC FILTER NO. 3 BACKWASH VALVE 6	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-311	DISC FILTER NO. 3 SOLIDS WASTE VALVE 1	M-3.44	MUV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-421	DISC FILTER NO. 4 BACKWASH VALVE 1	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-422	DISC FILTER NO. 4 BACKWASH VALVE 2	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-423	DISC FILTER NO. 4 BACKWASH VALVE 3	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-424	DISC FILTER NO. 4 BACKWASH VALVE 4	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-425	DISC FILTER NO. 4 BACKWASH VALVE 5	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	

MOV-539-426	DISC FILTER NO. 4 BACKWASH VALVE 6	M-3.44	BAV	2-IN	O/C	TBD	120/1 /60	TBD	
MOV-539-411	DISC FILTER NO.4 SOLIDS WASTE VALVE 1	M-3.44	MUV	2-IN	O/C	TBD	120/1 /60	TBD	

END OF SECTION

SECTION 16160

ENCLOSURES

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. This Specification includes enclosures to house electrical controls, instruments, terminal blocks, and serve a junction boxes where shown on the Drawings.

1.2 SUBMITTALS

A. Products shall be submitted in accordance with Section 16000, General Electrical Requirements, and elsewhere in the Contract Documents, prior to installation.

1.3 MANUFACTURERS

A. Enclosures shall be manufactured by Hammond, Hoffman, Rittal, or equal.

PART 2 - PRODUCTS

2.1 STEEL

A. Enclosures shall be fabricated from 14 gauge steel with seams that are continuously welded. Doors shall have full length piano hinges with the door removable by pulling the hinge pin.

B. A rolled lip shall be provided around three sides of the door and around all sides of the enclosure opening. The gasket shall be attached with oil-resistant adhesive and held in place with steel retaining strips. Exterior hardware, such as clamps, screws, and hinge pins, shall be of stainless steel for outdoor installations. A hasp and staple shall be provided for padlocking. Each enclosure shall have a print pocket. All wires entering or leaving the enclosure shall terminate on terminal strips. All wires and terminals shall be clearly identified as specified elsewhere in these Specifications.

C. Finish shall be white enamel interior, light gray enamel, ANSI 61 exterior, over phosphatized surfaces. Special finishes and colors shall be furnished for wet locations. Drawings should be checked for special conditions.

2.2 NEMA RATING

A. Unless otherwise indicated on the Drawings, enclosures shall be NEMA 12 for indoors and NEMA 4X for corrosive areas and outdoor installations. NEMA 4X

enclosures shall be 316 stainless steel, unless noted otherwise. NEMA 4X enclosures shall also be used in wet or wash down areas.

B. Hazardous locations as indicated on plans shall be Nema 7.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Enclosures shall be installed as indicated on the Drawings and according to manufacturer's instructions.

B. Enclosures shall be properly grounded and shall include ground straps connected to hinged doors and accessories.

END OF SECTION

SECTION 16161

CONTROL PANELS

PART 1 - GENERAL

1.1 COPE

A. Contract Documents illustrate and specify functional and general construction requirements of the panel components and do not necessarily show or specify all components, wiring, and accessories required for a completely integrated system.

B. Provide all labor, materials, equipment, documentation including drawings and incidentals as shown on the Drawings, specified and required to design, furnish, install, calibrate, test, start-up, program, configure, commission and place into satisfactory operation all panels, intermediate termination panels and/or enclosures including panel components and instruments.

C. Conform the design and construction of panels to the specifications herein.

1.2 COORDINATION

A. Coordinate the installation of all items specified herein and required to ensure the complete and proper interfacing of all the components and systems.

B. All control loops to function as described in Section 17000, Control Descriptions and depicted on the CONTRACT DRAWINGS.

1.3 DEFINITIONS

A. Intermediate Termination Panel (ITP): An Intermediate Termination Panel is any junction box that has terminals to terminate wires and no electrical or electronic powered devices. These panels act as interim termination points for field wiring to be connected to the control systems equipment. Please note that junction boxes and pull boxes are different. ITP's are sometimes referred to as junction boxes. However, pull boxes are not allowed to have any wire splicing devices, including terminal blocks.

B. Local Control Panel (LCP): A Local Control Panel is an industrial piece of equipment that contains electrical or electronic devices, in addition to wire terminals. Typically, it is a local panel connected to a specific piece of equipment to provide control and/or monitoring of that equipment. A local control panel contains voltages of 120VAC or below.

C. Motor Control Panel (MCP): A Motor Control Panel is an industrial piece of equipment that houses components for the power distribution and starting of motors. The components may include motor starters and variable frequency drives.

1.4 QUALITY ASSURANCE

A. Reference Standards: Construction of panels and the installation and interconnection of all equipment and devices mounted within also comply with applicable provisions of the following, except where otherwise shown or specified.
   1. National Fire Protection Association 79
   2. National Electrical Code (NEC) current adoption.
   3. National Electrical Manufacturer's Association Standards (NEMA).
   4. American Society for Testing and Materials (ASTM).
   5. Operational Safety and Health Administration (OSHA) Regulations.
   6. State and local code requirements.
   7. Where any conflict arises between codes or standards, the more stringent requirement applies.
   8. All panel devices shall bear the label of the Underwriters' Laboratory (UL), Inc. or be UL Recognized. Some products certified by UL are components that are intended to be used in the manufacture of a complete listed product. These components cannot bear the UL symbol, but may use a special Recognized Component Mark.
      a. The UL/UR listed number shall be documented on the Bill of Materials on the drawings.
   9. The assembled LCP's and MCP's are to be conformed to meet UL 508A requirements and labeling.

B. Panel to be designed, schematics drawn and assembled by the manufacturer. Utilize one of the following Panel Manufacturers:
   1. Zak Controls, 4970 East Beverly Rd., Phoenix AZ 85044 – (602) 267-0100.
   2. RDC Electrical, 3411 South 44th St., Phoenix, AZ 85308 – (602) 437-0760.
   3. Keller Electrical Industries, Inc., 1881 East University Dr., Phoenix AZ 85034 (602) 437-3015.
   4. Vertech Industrial Systems, 4409 East Baseline Rd., Phoenix, AZ 85042, Tel: (480) 756-2300.

1.5 SUBMITTALS

A. General:
   1. Reference Section 01330, Submittals Procedures.
   2. Panels shall be furnished in accordance with the requirements as shown on the Drawings, and as specified in Division 16, Section 16050 and Division 17000, Sections 17456, 17453, 17460 and 1761.
   3. Generate drawing package utilizing AutoCAD versions 2004 through 2008. If utilizing a newer AutoCAD version, submit files saved at version 2008.

4. Drawing package shall contain complete wiring and schematic diagrams, control diagrams loop drawings, a complete Bill of Material, and any other details required to demonstrate that the system has been coordinated and will properly function as a unit. Drawings shall show proposed layout, anchorage, support and appurtenances of equipment and equipment relationship to other parts of the work including clearances for maintenance and operations.
5. Submit legible hard copies of the panel drawing package printed on 11" x 17" sheets.
6. Submit manufacturer's technical data sheets and product literature for the panel and all components utilized. Cleary identify exact equipment and material that is being supplied on the manufacturer's data sheets.
7. Submit a sample nameplate with the submittal.
8. Identify general location of all conduit entry points on the Front Elevation drawing of the documentation package.
9. Submit calculations and recommended cooling and heating load requirements.
10. Utilize the Hoffman Temperature Calculation tool at:
11. http://www.hoffmanonline.com/product_catalog/tools/index.aspx?cat_1=34& cat _2=375&SelectCatID=375&CatId=375.
12. Submit location and tube routing details for air conditioner drain line. Coordinate drain location with ENGINEER.

1.6 O&M MANUALS

A. Comply with the requirements of Section 01782, Operation and Maintenance Data.

B. Provide an electronic copy of the panel drawing package on a separate CD. Panel Drawings are to be provided electronically in AutoCAD version 2004 through 2008. If utilizing a newer AutoCAD version, submit files saved at version 2008.

1.7 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Comply with manufacturers requirements for Transportation and Handling of Materials and Equipment.

B. Comply with manufacturers requirements for Storage of Materials and Equipment.

C. Provide a hard copy of the panel drawings, size 11" x 17", inside the panel upon delivery.

PART 2 - PRODUCTS

2.1 PANEL ENCLOSURES

A. General:
   1. Conform panels and enclosures to the NEMA requirements as stated in Specification 16160, Enclosures.

2. All outdoor panels shall be provided with sunshade structures. Sunshade structures shall be constructed as shown on CONTRACT DRAWINGS.
3. Sizes shown on contract drawings are estimates. Furnish panels and enclosures sized to house all equipment, instruments, front panel mounted devices, power supplies, power distribution panels, wiring and other components installed within.
4. Size the panel to provide 20% spare free space capacity.
5. Use stainless steel fasteners throughout.
6. Provide interior mounting panels and shelves constructed of minimum 12 gage steel.
7. Provide 12”x12’ print pocket in panels with a 24” or larger door. Mount on inside door where no door mounted devices are located. If there is not enough room for a 12”x12” print pocket, provide a sized pocket to fit available room.
8. Provide enclosure mounting supports as required for floor, frame, or wall mounting. Indoor wall mount panels utilizing stainless steel unistrut. Outdoor wall mount panels utilizing PVC-coated Unistrut.

B. Construction Features:
   1. General Construction Features - Provide the following convenience accessories inside of each panel.
      a. One or more 120 VAC light fixtures with a minimum 40 watt lamp or LEDs with a snap switch for on/off control.
      b. Provide grounding studs or lugs for metal panels and doors.
      c. Provide all electrical components and devices, support hardware, fasteners, and interconnecting wiring required to make the panels and/or enclosures complete and operational.
      d. Provide oil resistant gasket completely around each door or opening.
      e. For panels located in the field or outdoors that have door mounted devices which do not meet the NEMA rating for the area, provide a window kit that includes a hinged door with a clear plastic window and an oil resistant gasket to encompass all non-NEMA rated panel instruments for this area.
      f. Provide full height doors.
      g. Provide panels with no extra holes or knockouts unless shown on Contract DRAWINGS.

C. Environment:
   1. General:
      a. Provide the following panel(s) with an air conditioner, heat exchanger or ventilation fan based on the submitted calculations for cooling and/or heating load requirements.
         1) 1) As Required by cooling and/or heating calculations.
      b. Provide a heater for all panels located outdoors to maintain a minimum temperature of 68°F.
      c. Provide a separate supplementary protector for the cooling or heating equipment.

d. Provide thermostats to automatically control heating and cooling requirements.
e. Provide a high temperature switch, for alarm purposes, in all panels that require air conditioners, heat exchangers or ventilation fans. The contact shall be wired to alarm to the Process Control Information System.
    1) Products and Manufacturers:
        a) Hoffman ATEMNC.
        b) Or Equal.

2. Air Conditioner:
    a. Coordinate utilization of air conditioners with the ENGINEER.
    b. Provide an automatically controlled closed loop air conditioner with filtered and adjustable air louvers to maintain temperature inside each enclosure below the maximum operating temperature rating of the lowest rated component.
    c. Provide a condensation drain line for each air conditioner.
    d. Coordinate space requirements for maintenance.
    e. Provide NEMA 4X for outdoor locations.
    f. Coat heating and cooling elements including external housing that are in contact with Plant's ambient environment with Heresite, or equal, for protection from hydrogen sulfide corrosion with hydrogen sulfide levels up to seven ppm.
        1) Coordinate application of coating with the ENGINEER.
    g. Product and Manufacturer:
        1) Hoffman (McClean).
3. Heat Exchanger:
    a. Coordinate utilization of heat exchangers with the ENGINEER.
    b. Provide an automatically controlled heat exchanger to maintain temperature inside each enclosure below the maximum operating temperature rating of the lowest rated component.
    c. Coordinate space requirements for maintenance.
    d. Products and Manufacturers: 1) Hoffman.
4. Ventilation Fan:
    a. Coordinate utilization of ventilation fans with the ENGINEER.
    b. Provide automatically controlled ventilation fans with filter to maintain temperature of indoor enclosures below the maximum operating temperature of the lowest rated component.
    c. Products and Manufacturers: 1) Hoffman. 2) Or Equal.
5. Heater:
    a. Provide adequately sized automatically controlled 120 VAC heaters to maintain temperature inside each enclosure above 40°F to a maximum of 80°F when the outside temperature is 0°F through 40°F.
    b. Maintain a minimum four inch clearance or minimum clearance recommendations from the manufacturers from any device.
    c. Product and Manufacturer: 1) Hoffman. 2) Or Equal.

D. Identification:
   1. Provide laminated plastic nameplates with a white background and black lettering for identification of panels and components.
   2. Construct nameplates with 1/16" plastic and with beveled edges.
   3. Nameplate Mounting:
      a. Indoor panels: Mount nameplates to the panel utilizing glue.
      b. Outdoor panels: Mount nameplates to the panel utilizing glue and with two self-sealing ¼" stainless steel screws by APM Hexseal.
      c. Glue Product and Manufacturer:
         1) Gorilla Glue.
         2) Or Equal.
         3) Provide nameplates according to Table 2.1.C.5 and Section 3.1.B:

Nameplate Specifications			
Type	Size	Font	Font Size
Manufacturer Nameplate	*1½" x 6"	Arial	1/8"
Panel Nameplate	*2" x 7"	Arial	1/2"
Device Nameplate	*1½"x 2½"	Arial	3/16"

Table 2.1.C.5 Nameplate Specifications

* This is a minimum height size requirement. Size nameplates large enough to display the information required to clearly identify the panel.

2.2 PANEL DEVICES

A. General:
   1. Provide DIN rail mounted devices where practical.
   2. All devices mounted on the exterior of the panel shall match the NEMA rating of the panel.

B. Internal Component Labeling:
   1. Provide a device label for devices mounted inside the panel that conforms to the criteria below:

a. Instruments: Provide label with the instrument loop number as shown on the CONTRACT DRAWINGS. Place label below the instrument on the backplane.
b. Supplementary Protector: Label each supplementary protector with CB and the number assigned in the supplementary protector schedule. Place label on the backplane.
c. Fuses: Label each fuse with FU and the number assigned in the fuse schedule. Place a label on the backplane that includes the fuse number and the fuse size.
d. Control Relays: Label each relay with CR and the number assigned in the panel drawings. Place label below the relay on the backplane.
e. Terminal Strips: Label each terminal strip with the terminal strip type. (ex. TB1, TB2, ATB). Place label above the terminal block or at first terminal on the backplane.
f. Door Mounted Devices: Provide a label on the interior of the front panel door for every panel device. The label should contain the same information as shown on the front panel nameplate. Place the label below the device.
g. Wireway Covers: Label wireways with the voltage that is being routed through it. For example; "24 VDC" for DC voltage or "120VAC" for AC voltage. Place label on wireway cover. Coordinate label size to fit on wireway cover.
h. Identify internal components with permanent adhesive plastic labels.
    1) Product and Manufacturer:
        a) Brady USA Inc.
        b) Or Equal.
    2) Provide device label size and fonts per Table 2.2.B.1:

Device	Label Size	Font Size	# Points	Brady Part #
(Wireways) 24VDC	1"x 4"	Arial	48 Points	PTL-42-422
(Wireways) 120VAC	1"x 4"	Arial	48 Points	PTL-42-422
Misc. Device Labels	1"x 1"	Arial	16 Points	PTL-19-423
Panel Door Devices	1" x 1.5"	Arial	8 Points	PTL-31-423

Table 2.2.B.1 Panel Interior Device Label

C. DIN Rail:
1. General: DIN rail is the metal rail used to mount various electrical components in a panel.
2. Mount all internal components on DIN Rail.

3. DIN Rail for terminal blocks shall be raised DIN rail to match the height of the wireways.
4. Product and Manufacturer, Provide one of the following:
    a. Phoenix Contact.
    b. Or Equal.

D. Control Circuit – Supplementary Protectors:
1. Provide single pole supplementary circuit protectors with the following features, 120 Volt AC, DIN rail mounted and UL 1099 listed with auxiliary contacts.
2. Provide end caps, marking strips, insulated side jumpers and other accessories.
3. Product and Manufacturer, Provide one of the following models where "xx" is the appropriate rating.
    a. Phoenix Contact, TMC 1-M1-xxA.
    b. Allen-Bradley, 1492-SP1Bxxx.
    c. Idec, NRC-11-0-L-xxA-AA.

E. Air Conditioner or Heater Supplementary Protectors:
1. Provide supplementary protectors with the following features, 120 Volt AC, DIN rail mounted and UL 489 listed with auxiliary contacts.
2. Product and Manufacturer, Provide one of the following:
    a. Allen-Bradley, Bulletin 1489.
    b. Or Equal.

F. Control Relays:
1. Type: General purpose, plug-in socket base type rated for continuous duty.
2. Construction Features:
    a. Coil Voltages: 120 VAC.
    b. Contacts:
        1) Silver cadmium oxide rated not less than ten amperes resistive at 120 VAC or 28 VDC continuous.
        2) For switching low energy circuits (less than 200 ma) fine silver, gold flashed contacts rated not less than three amperes resistive at 120 VAC or 28 VDC continuous shall be provided.
        3) Number of contacts:
            a) Minimum: Two double pole/double throw contact sets
            b) Maximum: Four double pole/double throw contact sets.
            c) Socket type to be blade.
            d) Relay Enclosure: Dust-proof plastic enclosure.
            e) Relays shall have an LED indicating lamp to show energized state.
3. Product and Manufacturer: Provide one of the following:
    a. Type R and/or Type K, as manufactured by Square D Company.
    b. Type RH and/or Type RY, as manufactured by IDEC.
    c. Potter & Brumfield.

G. Time Delay Relay:
   1. Type: Dial adjustable, plug-in type time delay relay providing delay-on-make, delay-on-break one shots or interval operation.
   2. Construction Features:
      a. MOS digital circuit with transformer coupled power.
      b. Switch selectable ranges.
      c. Minimum Setting: Three percent of range; except 50 ms for one second range.
      d. Contacts:
         1) Type: DPDT.
         2) Rating: Seven amps resistive at 120 VAC, seven amps at 24 VDC.
      e. Housing:
         1) Plug-in design with dust and moisture resistant molded plastic case.
      f. Power Input: 120 VAC.
   3. Product and Manufacturer: Provide one of the following:
      a. Manufactured by Automatic Timing and Controls Company.
      b. Manufactured by IDEC.

H. Selector Switches, Pushbuttons and Indicating Lights:
   1. General:
      a. Selector switches, pushbuttons and indicating lights shall be supplied by one manufacturer and be of the same series or model type.
      b. Type: 30mm, Heavy duty industrial, oil tight, corrosion resistant, with interchangeable pilot lights, plug-in construction, double break silver contacts, chrome plated lock rings, and modular contacts.
      c. Mounting: Flush mounted on panel front, unless otherwise noted.
      d. NEMA rated to match panel in which mounted.
      e. Provide individual legend plates for indication of switch, pushbutton, and light function (e.g., Open, Closed, Hand-Off-Auto). A list shall be submitted for review and approval.

I. Selector Switches:
      a. Type: Provide selector switches with number of positions as required to perform intended functions as shown on the Drawings and as specified.
      b. Contacts:
         1) Provide number and arrangement of contacts as required to perform intended functions specified, but not less than one double pole, double throw contact per switch.
         2) Type: Double break, silver contacts with movable contact blade providing scrubbing action.
         3) Rating: Compatible with AC or DC current with devices simultaneously operated by the switch contacts, but not less than ten amperes resistive at 120 volts AC or DC continuous.
      c. Switch Operator: Standard black knob.
   2. Pushbuttons (Standard or Illuminated):

a. Momentary Type: Provide momentary, booted type pushbuttons as required to perform intended functions specified and shown on the Drawings. Boot color to be red for stop buttons and black for other functions.
    1) Provide extended head pushbuttons for all stop functions. 2) Provide flush head pushbuttons for all other functions.
b. Maintained Type: Provide maintained, push/pull, "Mushroom" type, red in color, to perform intended functions as specified, and as shown on the drawings.
    1) Emergency Stop button shall be red and the base of the button shall be yellow.
c. Contacts: Comply with the requirements specified for selector switches.
d. Lock-out: Provide locking mechanism for all lock-out functions.

3. Indicating Lights:
    a. Type: Compact, integral non-transformer type.
    b. Lamps: 120 VAC, high-intensity LED type (20,000 hours minimum). Indicating lights shall have clear lenses and LED lamps colored as shown on the Drawings.
    c. Common, push-to-test circuitry shall be provided for each panel to simultaneously test all indicating lights on the panel using a single pushbutton when there are 10 or more lights on the panel. Control panels with less than 10 lights shall utilize individual push-to-test lights and control circuitry.
    d. Button and Lamp Colors:
        1) Red for indication of open, on, or running.
        2) Green for indication of closed, off (ready), or stopped.
        3) YELLOW for indication of equipment malfunction, process trouble or alarms.
        4) White for indication of electrical control power on.
4. Rotary Cam Switches:
    a. Provide rotary cam switches with number of positions and poles as required performing the signal switching function specified and shown on the Drawings.
    b. Contacts:
        1) Gold-flashed contacts housed in mechanical contact blocks with number and arrangement of contacts as required performing intended function.
        2) Contact Rating: Compatible with AC or DC through-put current of signals and devices simultaneously operated by the switch contacts, but not less than 20 amperes at 600 VAC or 250 VDC continuous.
    c. Switch Operator: Standard black knob.
5. Product and Manufacturer: Provide one of the following:
    a. Square D.
    b. Allen-Bradley Co.
    c. Eaton.

J. Potentiometer:
   1. Type: Industrial potentiometer operator, direct acting, 3/4 to full turn; and standard 3-wire potentiometer.
   2. Required Features:
      a. NEMA rated to match panel in which mounted.
      b. Resistance Range: 0 to 10,000 Ohms.
      c. Resistance Element: Wire wound or conductive plastic.
      d. Power Rating: Two watts.
      e. Mounting: Flush mounted on panel front, unless otherwise noted.
      f. Provide legend plate for indication of position (0 to 100 percent).
   3. Product and Manufacturer: Provide one of the following:
      a. Square D.
      b. Allen-Bradley Co.
      c. Eaton.

K. Power Supply:
   1. General:
      a. Panel power supply source, type, voltage, number of circuits and circuit ratings shall be as shown on the Contract Drawings.
      b. Panels shall be provided with an internal 120 VAC with number of circuits and separate supplementary protectors sized as required to distribute power to the panel components.

L. 24VDC Power Supplies:
   1. General:
      a. Single unit and multiple unit power supplies, located in panels, as required.
      b. Single Unit Required Features:
         1) Solid state circuitry.
         2) Surface mounting.
         3) Input Power: 120 VAC, ± 10 percent, 60 Hz.
         4) Output Power: 24 VDC or as required.
         5) Line/Load Regulation: 0.05 percent.
         6) Ripple: 0.25 mv RMS.
         7) Overload Protection: Internal preset or fused.
   2. Product and Manufacturer: Provide one of the following:
      a. Acopian Corporation.
      b. Power One.
      c. Lambda.
      d. Sola.
   3. If redundant power supplies are required: Provide one of the following:
      a. Lambda DPL-PU/E.
      b. Phoenix Contact Quint-Diode/40.
      c. Puls.
      d. Or Equal.

M. Wire:
1. General:
   a. Provide internal wiring of Type MTW stranded copper wire with thermoplastic insulation with no nylon jacket rated for 600 V at 90°C for single conductors.
   b. No utilization of Type THHN for panel wiring.
   c. For DC panel signal wiring, use #16 AWG shielded minimum.
   d. For AC power wiring, use #14 AWG minimum. For AC signal and control wiring, use #16 AWG minimum. For wiring carrying more than 15 amps, use sizes required by NEC and NFPA 79 Standards.
   e. Identify wires at each end using heat shrink labels with permanent number codes using a Brady LS2000 Labeling System, or equal.
   f. Panels conform to the wire color code as shown in Table 2.2.K.1.f Wire Color Code and NFPA 79 Standards.
2. Product and Manufacturer: Provide one of the following:
   a. Carol.
   b. Belden.
   c. Anixter.

WIRE COLOR CODE TABLE (Inside Panels)			
TYPE	FUNCTION	INSULATION COLOR	WIRE SIZE
AC POWER - HOT	120VAC	**BLACK	#14
AC POWER - NEUTRAL	120VAC	WHITE	#14
AC GROUND	120VAC	GREEN	#14
AC CONTROL	120VAC	**RED	#16
ISOLATED DC GROUND	GROUND	GREEN W/YELLOW	#16
DC POWER	SOURCE	BLUE	#16
DC POWER	COMMON	WHITE /BLUE	#16

CONTROL	FOREIGN VOLTAGES	YELLOW	#16
LOW VOLTAGE AC	24 VAC SOURCE	BROWN	#16
LOW VOLTAGE AC	24 VAC COMMON	BROWN W/WHITE	#16
*AC POWER	480 VAC PHASE A	BROWN	Size to FLA
*AC POWER	480 VAC PHASE B	ORANGE	Size to FLA
*AC POWER	480 VAC PHASE C	YELLOW	Size to FLA
TEMPORARY	TEMPORARY	PURPLE	Size to FLA

Table 2.2.K.1.f Wire Color Code * - For Motor Control Panels (MCP's) that are permitted to contain 480 VAC

** - Black 120 VAC wires are hot unless powered down via supplementary circuit protector. Red 120 VAC wires are hot based on the control logic state.

N. Single Shielded Pair Cable:
   1. Tinned copper, nineteen strand, PVC insulated conductors, No. 16 AWG minimum, twisted with aluminum-polyester shield, stranded tinned 16 AWG copper drain wire and PVC black or gray outer jacket. Wire conductor colors shall be black (-neg) and red (+pos). 600 Volt Tray Cable (TC) rated.
   2. Product and Manufacturer: Provide one of the following:
      a. Belden Company (No. 9342).
      b. Okonite Company.
      c. Dekoron Wire and Cable Company.

O. Wire Terminations:

1. Terminate all field and internal component wiring using insulated ferruled connectors attached with manufacturer's recommended tool.
2. Excessive stripping of the wire so as to allow bare wire outside the insulated ferrule is not permitted.
3. Utilize insulated double ferruled connectors wherever two wires terminate on the same terminal block connection.
4. Product and Manufacturer: Provide one of the following:
    a. Phoenix Contact – Clipline.
    b. Thomas & Betts.
    c. Weidmuller.

P. Terminal Blocks:
1. General:
    a. Numerically code terminals utilizing terminal block manufacturer's marking system. Information must be printed directly on the terminal label. Sticky back labels are not permitted.
    b. Terminal blocks must be DIN rail mountable with screw clamp connections. Spring cage connections are not permitted.
    c. Double level terminal blocks are permitted for use with signals on Analog Terminal Block (ATB) only.
    d. Terminals used for analog signals on ATB shall be colored blue.
    e. Terminal block jumpers must be connected via screw clamp. Screw clamped comb jumpers are permitted. Plug in jumpers are not permitted.
2. Product and Manufacturer: For each terminal strip type provide one of the following:
    a. Power Terminal Block (PTB).
        1) Phoenix Contact, Type UK 5 N, Color Gray, Model # 30 04 36 2.
        2) Allen Bradley, Type 1492-J4, Color Gray, Model # 1492-J4.
        3) Weidmuller, Type WSU 4, Color Dark Beige, Model # 1020100000.
    b. Field Wiring Discrete Signal Terminal Blocks (TB1 and TB2).
        1) Phoenix Contact, Type UDK 3, Double Connection, Color Gray, Model # 27 75 37 5.
    c. Weidmuller, Type WDK 2.5V, Double Connection, Double Level, Internal Connection, Color Dark Beige, Model # 1905060000.
    d. Field Wiring Analog or Internal Wiring DC Power (ATB) - Single Level Terminal Blocks:
        1) Phoenix Contact, Type UK 3N BU, Color Blue, Model # 30 01 51 4.
        2) Allen Bradley, Type 1492-J3-B, Color Blue, Model # 1492-J3-B.
        3) Weidmuller, Type WDU 2.5 BL, Color Blue, Model # 1020080000.
    e. Field Wiring Analog or Internal Wiring DC Power (ATB) - Double Level Terminal Blocks. Alternating double and single level ATB terminal blocks are permitted.
        1) Phoenix Contact, Type MBKKB 2,5 BU, Double Level, Color Blue, Model # 27 71 09 4.

2) Allen Bradley, Type 1492-JD3-B, Double Level, Color Blue, 3) Model # 1492-JD3-B.
3) Weidmuller, Type WDK 2.5 BL, Double Level, Color Blue, 5) Model # 1021580000.

Q. Surge Protection:
1. Provide DC surge protection with integrated varistor for all analog signal loops that are terminated to Programmable Logic Controllers.
2. Provide maintenance free, self-restoring surge protection to protect the electronic instrumentation system from surges propagating along the signal and power supply lines. Device shall be removable without interrupting the circuit.
3. Provide a separate surge protector for the positive and a separate surge protector for the negative polarity of each loop.
4. Mount the surge protectors on the ATB.
5. Ground the surge protectors to the panel DC ground bus.
6. Label the surge protectors in sequential order starting with the ATB signals.
7. Required Features:
   a. Amp Rating: Compatible with working voltage and current of device being protected.
   b. Voltage Rating: Compatible with the working voltage of protected device.
   c. Reaction Time: nanosecond range.
8. Product and Manufacturer: Provide one of the following:
   a. Phoenix Contact.
   b. Advanced protection Technologies.
   c. EDCO.
   d. Or Equal.

R. Wireways:
1. General:
   a. Mount wireways using stainless steel bolts. Drill and tap the sub-panel to accommodate the bolts.
   b. Color to be Gray or White throughout the entire panel. Provide only one color.
   c. All wireways to include cover.
   d. Wireway covers to be labeled as per section 2.2.B.
2. Product and Manufacturer: Provide one of the following:
   a. Panduit.
   b. Thomas & Betts.
   c. Or Equal.

S. Alarms:
1. Audible alarms shall be UL listed, 120VAC, with solid state circuitry, vibrating horn, non-metallic corrosion resistant housing, with required mounting hardware, suitable for outdoor use capable of producing 100 dB at

10 feet. The audible alarm shall be manufactured by Federal Signal model 350, Edwards Model 870-EX, or equal.

2. Rotating beacons for interior and/or exterior locations shall be UL listed, 120VAC, with motor and cooling fan, rotating lights at 60 times per minute minimum, capable of producing 36,000 candlepower with required mounting hardware. Lens color shall be verified at the time of construction. The rotating beacons shall be manufactured by Federal Signal Model 371L or equal.
3. Rotating beacons for corrosive and/or hazardous locations shall be UL listed, 120VAC, with solid state circuitry, rotating lights at 60 times per minute minimum, suitable for outdoor use capable of producing 36,000 candlepower with required mounting hardware. Lens color shall be verified at the time of construction. The rotating beacons shall be manufactured by Edwards Model 52EX, or equal.
4. Strobe beacons shall be UL listed, NEMA 4X, 120VAC, flashing at 80 times per minute minimum, producing peak candlepower of 520,000, effective candlepower of 165, with required mounting hardware. Lens color shall be verified at the time of construction. The rotating beacons shall be manufactured by Federal Signal model 151XST, Edwards Model 92EX, or equal.

T. Intrinsically Safe Barriers:
   1. Intrinsic safety barriers shall permit connection of devices located in a hazardous area to other devices located in a safe area. Intrinsic safety barriers shall be EMC compliant, 10 to 35VDC, 35mA output current, hazardous area terminals identified by blue labels, terminals accommodating conductors up to 12AWG, ambient temperature rating of -20° C to +60° C. The intrinsic safety barriers shall be manufactured by MTL Inc., Ronan Engineering Co., R. Stahl Inc., A.T.C., or equal.

U. Elapsed Time Meters and Time Clocks:
   1. Elapsed time meters shall be self powered, non-reset, solid state counter which provides silent, accurate and noise immune operation. Elapsed time meters shall require no external power, five year minimum battery life, 120VAC power, accessories for panel mounting, nameplate below LCD display reading "HOURS", liquid crystal display with 6 digits approximately 2-inches high with 50,000 hour minimum display life and indication of sufficient battery power. The elapsed time meters shall be manufactured by Durant, Automatic Timing and Controls, a Division of Sycon Corp., or equal.
   2. Time clocks shall be microprocessor based, have 24 hour time control, up to 24 operations per day, programmable from panel face keys, skip-a-day feature allowing schedule to be skipped for one to seven days, SPDT switch contact rated at 15 amps at 120VAC, with battery carryover to maintain time and program during power outage for 275 hours. The time clocks shall be manufactured by Tork, Paragon Electric Company, or equal.

V. Motor Starters and Overload Relays:

1. Refer to Specification Section 16480, Motor Controllers.

PART 3 - PEXECUTION:

3.1 EXTERIOR PANEL:

A. Component Layout:
   1. Arrange associated control and indication devices for a particular part of the process in close proximity to each other.
   2. Mount indicating lights above control switches and push buttons.
   3. Standard component spacing is 3 ½" center to center and 3 ½" above and below. It is acceptable to use more space if required, but spatial consistency must be maintained.
   4. Maximum height for panel exterior-mounted devices is 6'-0" from the floor. Minimum height for panel exterior-mounted devices is 3'-0" from the floor.
   5. Locate alarm horn at the top of the panel. The alarm horn may be located above 6'-0" device height limitation.
   6. Unless otherwise noted; route field wiring through the bottom of the enclosure. Provide watertight conduit openings.

B. Exterior Panel Nameplates:
   1. General:
      a. Refer to Section 2.1.D for material and size requirements.
      b. Provide specific panel identification on nameplates derived from the contract specifications and drawings.
      c. Obtain ENGINEER approval for panel identification for panels that are not identified in the contract specifications and drawings.
   2. Panel Manufacturer Identifier and Power Requirements Nameplate (NP-1):
      a. Mount nameplate in the upper left corner of the panel front.
      b. Provide the following information for each circuit feeding the panel:
         1) The first line indicates the name of the manufacturer, location and phone number of who assembled the panel.
         2) The following lines:
            a) Include panel voltage, current, phase, frequency, short circuit current rating for each panel feed.
            b) Provide switchboard name and circuit number for each circuit feeding the panel.
            c) Refer to figure 3.1.B.2.

WILSON & Sons, CHANDLER, AZ 85226 - (480) 555-1234 120 VAC, 0.5 AMPS, 1Ø, 60HZ, SCCR 5KA, FED FROM LP-34, CIRCUIT 6

120 VAC, 7.5 AMPS, 1Ø, 60HZ, SCCR 8KA, FED FROM LP-34, CIRCUIT 8

Figure 3.1.B.2
Panel Manufacturer Identifier and Power Requirements Nameplate (NP-1)

3. Panel Identification Nameplate (NP-2)
   a. Mount panel identification nameplate in the top, center of the panel.
   b. Provide the following information:
      1) The first line of text is an abbreviation of the panel as shown on the CONTRACT drawings.
      2) The second line of text on the nameplate is used to spell out the process abbreviation.
      3) Refer to figure 3.1.B.3.

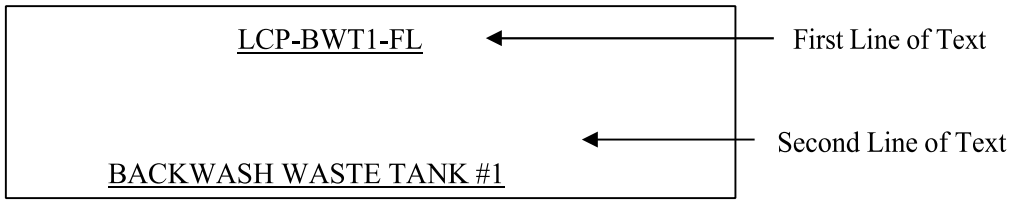


Figure 3.1.B.3
Panel Identification Nameplate (NP-2)

4. Panel Component Nameplates
   a. Mount nameplates above all control and indicating devices.
   b. Provide the following information:
      1) The first line indicates the instrument device loop identifier and number as shown on the DRAWINGS.
      2) The second line identifies the system equipment that the component is associated with.
      3) The third line identifies the control position, condition of the equipment or the alarm state being monitored.
      4) Refer to figure 3.1.B.4.

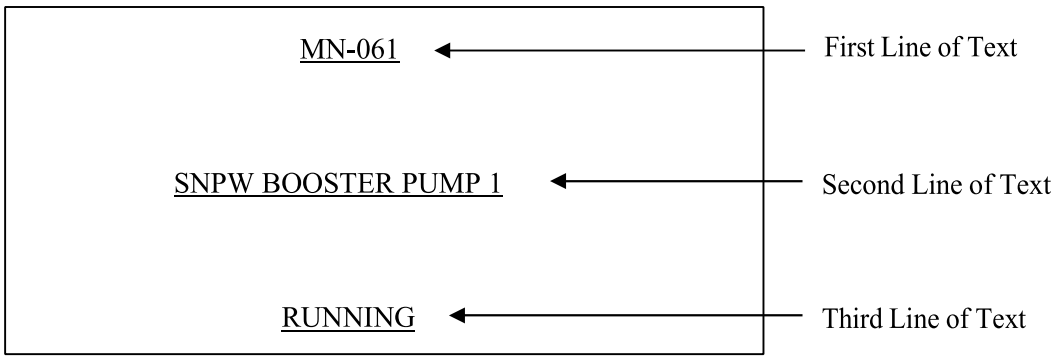


Figure 3.1.B.4
Panel Component Nameplates

3.2 INTERIOR PANEL

A. General:
   1. All Wall Mounted Panels - Where conduit enters the panel, maintain a minimum of 4" clearance from any device or wireway to allow room for routing of field wiring.
   2. Concrete Pad or Floor Mounted LCP's and MCP's – Where conduits enter the panel through the concrete pad, maintain a minimum of 6" clearance from any device or wireway to allow room for routing of field wiring. Where conduit enters the panel sides or top, maintain a minimum of 4" clearance from any device or wireway to allow room for routing of field wiring.
   3. Elevated Floor Mounted LCP's and MCP's - Where conduit enters the panel, maintain a minimum of 4" clearance from any device or wireway to allow room for routing of field wiring.
   4. Concrete Pad, Floor Mounted or Elevated Floor Mounted ITP's - Where conduits enter the panel through the top or bottom, maintain a minimum of 6" clearance from any device or wireway to allow room for routing of field wiring.
   5. Locate and install all devices and components so that connections can be easily made and that there is ample room for servicing each item.
   6. Maintain a minimum 2'0" clearance between components mounted on side panels and components mounted on the opposing side panel.
   7. Components mounted on the back panel are to be unobstructed by any components mounted on side panels.
   8. Adequately support and restrain all devices and components mounted on or within the panel to prevent any movement.

B. Panel Incoming Power:
   1. Panel power fed from lighting panels, or other sources with fused or circuit breaker protection, shall be wired to the Power Terminal Blocks (PTBs). Power sources entering the panel are to be provided with a separate neutral and ground. The PTBs shall have a separate terminal for the hot and neutral for each circuit. The ground to be terminated to the AC ground bar.

2. Mount the PTBs near the top left corner of the panel.
3. Multiple power sources may be required for each panel. Power requirements are identified on the CONTRACT DRAWINGS. The following additional power sources may be required for the panel.
   a. Control Logic Power and Light Fixture.
   b. Air Conditioning.
4. Arrange the terminal strip in an orderly manner with circuit conductors grouped together. For instance, terminate the hot and neutral conductors on consecutive terminals. Label terminals and internal wiring as H1 and N1 (Control Logic), H2 and N2 (Air Conditioning). Identify each additional source in sequential order beginning with H3 and N3.
5. Terminate all incoming power on one side of the terminal strip.

C. AC Power Distribution:
1. Identify the wire extending from the PTB to the supplementary protector as H1 and H2, etc. Using H1 as an example; the wire terminated to the line side of the supplementary protector is labeled H1, the wire terminated to the load side of the supplementary protector is labeled as L1-1.
2. If L1-1 passes through an additional supplementary protector to feed panel components, this supplementary protector can be shown on the drawings in a horizontal or vertical position on a schematic rung and the wire terminated to the line side of the supplementary protector is labeled L1-1. The wire terminated to the load side of the supplementary protector is labeled L1 – (the Supplementary Protector #) and the wire color is black.
3. If the panel controls multiple pieces of equipment, such as two pumps with separate control circuits, provide a supplementary protector for each control circuit.
4. Powering 120 VAC field 4-wire instruments from the panel is not permitted.

D. DC Power Distribution:
1. Mount DC power supplies near the top right of the panel. Mount fuses associated with the power supply in close proximity to the power supplies.
2. Identify terminals used for DC power distribution as PTB-DC.
3. Provide a fuse for each analog loop that loop power is provided by a power supply located in the panel.

E. Grounding:
1. AC Ground:
   a. Provide the AC ground bus bar with cage type or screw terminals installed near the bottom of the back panel with extended mounting bolts.
   b. Provide adequate metal to metal contact between the AC ground bus bar and the back plane.
   c. Connect all AC power sources and devices to ground at this ground bus.
   d. Connect all panel enclosure doors to the AC ground bus.
   e. Connect all side panels to the AC ground bus.

f. Provide a connection point on the ground bus for connection to the ground grid system.

2. DC Ground:
   a. Install the isolated DC grounding bus bar with cage type or screw terminals installed near the bottom of the back panel at a minimum distance of 6" from the AC ground bus.
   b. The isolated grounding bus bar consists of two non-conductive mounting blocks with a single copper grounding bar attached between them.
   c. Connect all shields (SH) requiring loop grounding in the panel from the analog signal terminals to the DC grounding bus bar.
   d. To avoid ground loops, connect analog cable signal shields to ground at one location only, preferably in the LCP, MCP or ITP; not in the field. Maintain consistency for the termination point of signal shield for all analog signals.
   e. Provide a connection point on the ground bus for connection to the ground grid system.
   f. Figure 3.2 illustrates a typical ground system within a panel. The illustration depicts the physical terminations of the ground wires in the panel. Ground Conductor AWG size to ground grid system shall be as stated in Specification 16170, Grounding and Bonding.

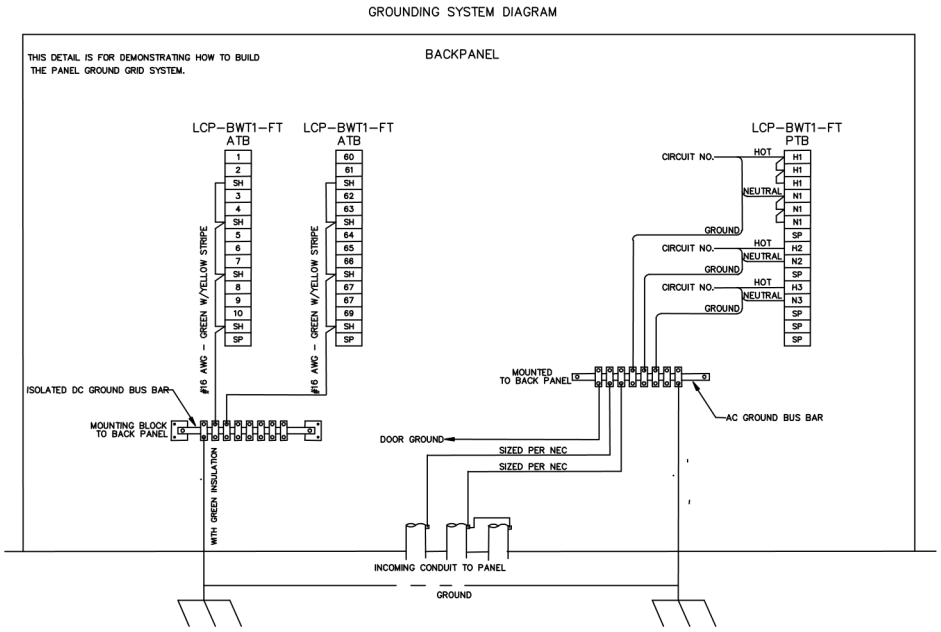


Figure 3.2 Typical Grounding Systems

F. Circuit Protection:

1. Provide an isolating supplementary protector for each group of control logic. For example: the start, stop and reset control circuit for Pump #1 has a dedicated supplementary protector supplying power to the control logic. Pump #2 requires a separate isolating supplementary protector for the control logic.

2. Provide an isolating supplementary protector for each component requiring 120 VAC power.
3. A supplementary protector is not required for control circuits powered from a fused control power transformer in an MCP.
4. Size supplementary protector to handle the connected load.
5. Mount supplementary protector next to the PTBs near the top left corner of the panel.
6. Provide an auxiliary contact for each supplementary protector. Wire each auxiliary contact from the supplementary protector in series to one "Power fail' relay. Send one Power Fail status to the Process Control Information System.

G. Internal Panel Wiring:
1. Route all internal wiring using wireways. Terminate all internal wires on one side of the terminal blocks. The opposite side of the terminal block shall remain available for field wires.
2. Where wires pass through panel walls, provide suitable bushings to prevent cutting or abrading of insulation.
3. Adequately support and restrain all wiring runs to prevent sagging or other movement. Wires extended from the control logic to the panel door devices are to be wrapped in plastic protective wire wrap designed for this purpose.
4. Wire splicing is not allowed at any time.
5. Utilize two wires (hot and return leg) with field wiring for each field input. It is not acceptable to utilize one common Hot for multiple field inputs.
6. Terminate wires with a non-insulated ferrule type crimp connector. Excessive stripping of the insulation to allow bare wire strands between the insulation and the ferrule is not permitted.
7. Orientate wire labels on the individual conductor or cable so that wire labels are legible without having to twist or move the connectors. Securely heat shrink the labels around the conductor. Label wires or cables with the number assigned in the panel documentation. Refer to Section 2.2.K.1.e for wire label materials.
8. DC wiring for analog and discrete field or Process Control Information System signals that enter or leave the panel are to be terminated on the Analog Terminal Block (ATB).
9. AC wiring for discrete field signals that enter or leave the panel are to be terminated on the Terminal Block 1 (TB1).
10. AC wiring for discrete Process Control Information System signals that enter or leave the panel are to be terminated on Terminal Block 2 (TB2).
11. The terminal blocks (TB1, TB2 or ATB) can be mounted on the left or right side panels.
12. Provide a minimum of 10% spare terminal DIN rail space per terminal strip.
13. Signals from the field that enter the panel and only pass through the panel from the field to the Process Control Information System require internal wiring from TB1 to TB2.

14. Arrange all control wiring associated with a particular piece of process equipment together on adjacent terminal blocks.
15. Identify wire number by the schematic rung numbers. Label TB1 and TB2 terminals with the rung number associated with the internal wire number connected to the terminal. Label ATB terminals in sequential order starting with the number 1. Identify analog shield terminations with an "SH" on the terminal block.
16. Multi-conductor cables of two pair or more shall have the outer cable insulation removed before entering the wireway.
17. Route all DC power and analog signals at a minimum of six inches from AC power and controls. When the six inch minimum distance is not available, provide a metallic barrier that extends 3" beyond the tallest wireway between the analog and discrete wireways.

H. Wireways:
1. Mount wireways from the internal panel components and terminal blocks with a minimum 2" spacing.
2. Arrange wireways to maintain a six inch minimum distance between analog and discrete circuit wiring.
3. Provide wireways for all field wiring. Arrange wireways to allow field wiring to enter from the top or bottom of the panel.
4. Align wireways between back and side panels.
5. Install a wireway on both sides of each terminal strip.
6. Size wireways to prevent conductor fill from exceeding 50% of the interior cross-sectional area of the wireway.
7. In addition to the above requirements, for ITP's, wireways are not to be common for two terminal strips. Each terminal strip shall have a dedicated wireway on each side of the strip.

I. Control Logic:
1. The Start commands are to be designed utilizing normally open contacts from pushbuttons and/or the Process Control Information System and shall be of a momentary signal that will require a seal circuit to maintain operation. Constant signals from positions switches are not allowed unless noted on the CONTRACT DRAWINGS.
2. All system failure, safety logic control devices or normal operations that are intended to cause the equipment to stop are to be wired in series with the start seal circuit. The unsealing of the start command on any fault or normal operation that causes the equipment to stop will require another start command to reseal.
3. Provide interlocks for the control functions of Local and Computer Modes in series with the Start and Stop logic. Provide a closed switch or relay contact to the Process Control Information System to identify when the equipment is in Computer Mode.
4. Provide control logic of voltage 120 VAC.

5. Use power relays when control relay contacts are insufficient for the designated load.
6. Terminate the “Hot” conductor on the common of the switch or relay contact.
7. Control alarm logic shall be wired in a fail safe mode from the field device to the panel circuitry to alarm when a field wire has failed.

3.3 3.3 PANEL DRAWING DOCUMENTATION

A. General:
   1. Files of the title block, panel symbols for front and internal sub-panel elevations, terminal strips, control schematics, analog loops, etc. are available in hard copy and AutoCAD .dwg format from the OWNER upon request through the ENGINEER via Example Panel Drawing Packages and Drawing Templates.
   2. Provide drawing copies in the following format:
      a. Hard Copy - B Size - 11” X 17”.
      b. Hard Copy - D Size - 22” X 34”.
      c. Soft Copy in .DWG.
   3. The panel drawing documentation package consists of the following drawings types arranged in the following order. a. Cover Sheet.
      a. Symbols and Legends 1 – Exterior and Interior Panel Symbols.
      b. Symbols and Legends 2 – Schematic Symbols.
      c. Front Panel Elevation.
      d. Interior/Sub Panel Layout.
      e. Terminal Strip Drawings.
      f. Control Schematics.
      g. Analog Loop Diagrams.
      h. Point to Point Discrete Wiring Diagrams.
   4. Drawing Scale:
      a. Provide Front Elevation and Interior/Sub Panel Layout Drawings proportionately correct and to scale. Create all drawings on a D Size layout.
   5. Border and Title Block:
      a. Provide each drawing with a border and title block information.
      b. Utilize the border and title block as provided in the Drawing Templates referenced in Section 3.03.A.1.

B. Panel Drawing Types:
   1. General:
      a. Provide a complete documentation package for each panel consisting of the drawings in the order listed in Section 3.03.A.3.
   2. Cover:
      a. Cover sheet for the panel documentation shall include the following information.

1) Located on the left half of the sheet to include the manufacturers name, address, phone number, web address, project reference number and ul508a certification number.
2) On the right half of the sheet include the following, “customer name” “department” and the project title, project number, the panel full title, the panel abbreviation, the facility area in which the panel exists, submittal date, volume number and sheet count.

3. Symbols & Legends:
   a. Utilize the Symbols and Legend sheets as provided by the OWNER upon request from the ENGINEER.
   b. Additional symbols may be added if an existing symbol on the Symbol and Legend sheets does not exist.
4. Front Elevation Drawing:
   a. The Front Elevation drawing illustrates the arrangement of the panel and position of the devices on the front face of the panel.
   b. Provide panel dimensions in inches. Provide dimensions for height, width, and depth. If the panel is small in size, the Front Elevation Drawing and Internal layout Drawing can be combined on one drawing.
   c. Provide the nameplate schedule on the Front Elevation drawing.
   d. Device Callouts:
      1) Device callout hexagons are utilized to reference a device to the bill of materials. Place the bill of material item number inside the hexagon.
      2) Provide a leader from the hexagon that will point to the device.
      3) For a typical of multiple devices of the same type, only one device callout is necessary.
   e. Provide air conditioning heating and cooling information as provided by the Hoffman Temperature Calculation tool at: http://www.hoffmanonline.com/product_catalog/tools/index.aspx?cat_1 =3 4&cat_2=375&SelectCatID=375&CatId=375.
5. Interior Sub Panel Layout:
   a. General:
      1) The Interior Sub Panel Layout drawing identifies the individual interior components and their physical location.
      2) Draw all components within the panel to scale.
      3) Include all interior sub panels if the panel has sub panels on the side walls.
   b. Provide the following information on the Interior Sub Panel Layout Drawing. Utilize the formats provided on the Drawing Templates. The information can be shown on a second sheet if needed to drawing clutter.
      1) Bill of Materials:
         a) Include the devices on the Front Panel Elevation and the Interior Sub Panel(s) Elevation.

b) Include items that are not specifically shown on the Front Panel Elevation or the Interior Sub Panel Layout drawing, such as wire size, color and type, on the bill of materials.
c) The utilization or insertion of Microsoft Excel files for the Bill of Materials is not allowed.
2) Fuse Schedule.
3) Supplementary Protector Schedule.

c. Label and identify all devices, including terminal strips, relays, fuses, timers, power supplies and other special components on the drawing.
d. For unique devices not shown on the Symbols and Legend Sheets, use rectangles and squares with the appropriate dimensions of the device.
e. Device Callouts:
1) Device callout hexagons are utilized to reference a device to the bill of materials. Place the bill of material item number inside the hexagon.
2) Provide a leader from the hexagon that will point to the device.
3) For a typical of multiple devices of the same type, only one device callout is necessary.

6. Terminal Strip Drawing:
a. General:
1) Terminal Strip Drawings provides locations for wiring terminations from field devices and other equipment external to the panel.
2) Display the wiring connections exactly as they are physically installed. For example, if field wiring is terminated to the left side of the terminal strip, the terminal strip drawing displays the wiring connections to the left side of the terminal block.
3) There are 5 different types of terminal strips and each has a specific function. The following is a brief description of each: a) For LCP's and MCP's:
a) Power Terminal Block (PTB) – Power supply/supplies to the panel (120 VAC or higher). Identify terminal block number with the wire number assigned in the control logic drawings. Identify power sources with the originating panel, voltage and circuit number.
b) Field Wiring Discrete Signal Terminal Blocks (TB1) – Discrete field inputs and outputs to/from the panel. Identify terminal block number with the rung number assigned in the control logic drawings.
c) Field Wiring Discrete Signal Terminal Blocks (TB2) – Discrete inputs and outputs to/from the Process Control Information System. Identify terminal block number with the rung number assigned in the control logic drawings.
d) Field Wiring Analog (ATB) or Internal Wiring DC Power
e) Terminal Blocks - Field or Process Control Information System Analog inputs and outputs to/from the panel, including 4-20 mA,

1-5 VDC, thermocouple or Resistance Temperature Detectors (RTD's). Identify terminal block number with consecutive numbers starting with number 1.

f) The shield wire terminal block is to be label "SH".

g) For ITP's:

i. TB-A thru Z – Discrete field inputs and outputs to/from the panel.

ii. ATB-A thru Z – Analog inputs and outputs to/from the panel.

4) It is acceptable, if space available, to combine TB1, TB2, ATB and PTB on a single terminal strip drawing.

5) Identify spare terminals with an "SP" inside the rectangle.

6) Display terminals in the order they appear in the panel.

7) Place field wire labels on each line extending toward the terminal. Obtain this information from the cable and conduit schedules. If wire labels are unavailable, place seven "X's" where wire tag normally resides. Provide this information prior to final deliverable of the Operations & Maintenance Manuals.

8) Signal description consists of 3 lines of text. Center the text next to the terminals.

a) The 1st line of text lists the Equipment Name.

b) The 2nd line of text is for the Signal Function.

c) The 3rd line of text is the Signal Loop Number, if applicable.

7. Control Schematic:

a. General:

1) Control Schematics show the controls associated with pieces of process equipment and provide a visual depiction of the majority of control wiring.

b. Control Schematic Components:

1) Power Rail:

a) Represent the power rail with two parallel vertical lines that extend vertically down the schematic.

b) Each drawing includes two sets of power rails separated by 2.5".

c) Identify each power rail with the wire number such as L1 at the top and bottom of each power rail.

d) The left power rail represents the "Hot" side of the power source. The right power rail represents the "Neutral" side of the power source.

2) Power Source:

a) Identify power source(s) with the originating panel, voltage and circuit number between the "Hot" terminal and "Neutral" terminal on the first rung of the portion of the schematic for each source.

b) Indicate the terminals from the PTB providing the source and neutral powering the rail.

c) A supplementary protector or fuse is displayed in the power rail directly below the power source (Hot) terminal. Label the supplementary protector or fuse with the supplementary protector or fuse number and current rating.
d) Power layout for LCP's:
    i. In the first portion of the schematic, display power to the general purpose receptacle and panel light.
    ii. In the second portion of the schematic, display power to the air conditioner and/or heater.
    iii. In the third portion of the schematic, display the power to the control logic.
    iv. See Sections 3.2.B Panel Incoming Power and 3.2.C AC Power Distribution.
e) Power layout for MCP's:
    i. The first portion is for the typical 480 VAC motor control circuit with starter and disconnect, the next sections are the same as for the LCP's.
f) Rung Number:

3) Rung Number:
    a) Rung numbers are used to identify the location and cross referencing of devices within the schematic and provide a practical means of labeling conductors and terminals within the panel.
    b) Rung numbers are a sequential series of numbers starting with number 1. Locate the numbers vertically along the left side of the "Hot" power rail.
    c) Rungs are to be spaced on 0.5" centers based on a D Sized drawing.
4) Wire Numbering:
    a) On the downstream side of the first device on a rung, the wire number takes the rung number appearing to the left of the power rail. If a second device is located in the circuit, the wire number to the right of the second device takes the rung number, but is appended with an "A". The wire number to the right of the third device is appended with a "B", and so on.
    b) When the electrical connection originated on the previous rung, the wire numbers continue to use the previous rung number as the base.
    c) Connections to the power neutral rail take on the power neutral rail's wire number N#.
5) Electrical Connections:
    a) Represent electrical connections as a solid small circle where two or more wires interconnect.
    b) Represent electrical connections as a hollow small circle where wires terminate to a device.
6) Electrical Wiring:

a) Electrical wires or circuits are represented by horizontal rungs that connect terminal blocks, relays, contacts and all other components used in the electrical schematic.
b) Space the schematic electrical wiring every other rung at a minimum.
c) Identify each wire with the rung number as the wire number.
d) Label each wire with the conductor insulation color below each electrical wire. Refer to Table 2.2.K.1.f.
e) Indicate electrical wiring that is external to the panel with dashed lines.

7) Device Labeling:
   a) symbols in the schematic for field devices, pilot lights, switches, push buttons etc. requires two lines of text above the device and one line of text below the device to describe the usage of the device.
      i. The first line of text above the device is the name of the equipment the device is associated with.
      ii. The second line of text above the device is the control function of the device.
      iii. The line of text under the device is the loop number.
   b) Relay and timer symbol labels are to be identified with consecutive number starting with the number 1 or the rung number. For relay coils and contacts, identify the relay base terminal connection. Normally open or normally closed contacts refer to the de-energized or "off the shelf" state.
   c) Symbols in the schematic for contacts of relays, timers, etc. require two lines of text above the contact and two lines of text below the contact to describe the usage and coil reference of the contact.
      i. The first line of text above the contact is the name of the equipment the device is associated with.
      ii. The second line of text above the device is the control function of the device.
      iii. The first line of text under the device is the relay or timer number to reference the relay or timer in the schematic.
      iv. The second line of text under the device is the rung number of the relay or timer to reference where the relay or timer is located in the schematic. If using the rung number for the relay or timer coil, the rung number under the contact is not required.
      v. For relays and timer contact references, at the right of the neutral power rail, the schematic rung number location of all associated contacts is shown. If the contact is normally closed, underline the reference number. If a contact is unused, "SP" is shown.

8) Field Contacts:

a) Show Field Contacts connected to their respective TB1 or TB2 Terminals.
b) The connection lines from the contact to the terminal are dashed to designate they originate from outside the panel.

9) Selector Switches:
   a) Always show the switch in the far-left position, the switch contacts are shown as either opened or closed in this state. If they're in the closed state, the contact is shown closed, indicated by a line shown below and touching the two side small circles. If the contact is open in this position, a line is drawn above the two side small circles, but not touching them.
   b) Show each position of the switch directly above its respective location on the switch. This indicates whether it is a two, three, four, or more position (pole) switch, and shows what the nameplate on each position will read.
   c) To indicate which positions the contact is closed, show a contact legend in parenthesis below and to the right of the contact. If the contact is closed in a position, an "X" is shown in the order of the contact position in which it is closed. If the contact is open in a position, an "O" is shown.
   d) When a selector switch is continued onto another sheet or further down on the same sheet, the continuation note is shown below the selector switch. Where the switch is continued, the same note appears, but on the top of the contact.
10) Push Buttons:
   a) Represent the push button contact in its "off the shelf" state.
11) Terminals:
   a) Terminal numbers are dependent upon the specific rung number that they appear in the schematic logic. As a horizontal electrical connection is followed from left to right, the first terminal number takes on the number of the rung. The second terminal number also takes the rung number but is appended by the letter A, the third by the letter B, and so on.
12) Programmable Logic Controller:
   a) Panels that contain a Programmable Logic Controller (PLC) require connection information for the PLC I/O modules.
      i. Utilize the PLC drawings as provided in the Drawing Templates referenced in Section 3.03.A.1.
   b) Module Layout:
      i. Represent the module with a 1 1/2" wide vertical rectangle with a length suitable to encompass a maximum of 16 channels or 8 analog per section based on type of module.
      ii. Two cards can be shown per sheet.
      iii. Display field wiring (inputs) including TB1 and field device connections with a description on the left side of the module symbol.

iv. Label the module with model number, input voltage, rack number and slot number above the module symbol. iv. Number each screw terminal per manufacturer's data.
v. Display the associated PLC register address with each signal.
vi. Identify the positive and negative legs of the analog cable.
vii. Include all required jumpers for signal type and all 120VAC and 24VDC power requirements.

13) 480 Volt Equipment:
a) a) Provide the motor horsepower, full load amps and motor identification.

14) Contact Development:
a) The last sheet of the control schematic displays contacts for internal panel relay contacts that connect with external field equipment or the Process Control Information System (PCIS).
b) Organizes into two sections. The first section lists all contacts extending to the PCIS. Title this section "Contacts to PCIS". The second section lists all contacts extending into the field equipment external to the panel. Title this section "Contacts to Field". Group multiple contacts related to a single piece of equipment together.
c) Each contact includes a signal description and its associated relay number and relay rung number location. Device signals require the appropriate symbol from the Schematic Legend Sheet.

8. Analog Loop Diagrams:
a. General:
1) The analog loop diagram only displays the portion of the instrument loop that passes through a particular panel.
2) The analog loop diagram displays the connections between field instruments, panels and the PCIS.
3) Analog loop diagrams are reserved for analog signals and control loops, but may be used to show complex connections for a particular instrument or device.
4) Divide each loop into three different segments.
a) The left segment is "FIELD" connections. This segment provides information on terminations external to the panel (i.e., connected panels, instrument transmitters). If the first segment is another panel, the panel name replaces the "FIELD" label.
b) The center segment is the internal panel wiring and controls.
c) The right segment information represents output or input signals to downstream panels or the PCIS.
5) Identify shield grounding location.
6) Identify surge protection devices for each signal. Include surge protection for positive and negative leads. Utilize the surge protection block symbol from the legends and symbols sheet.

7) Identify the cable number, wire color and polarity for each cable in the loop.

3.4 INSTALLATION

A. Install equipment in conformance with NEC. Mounting panels on handrails is not allowed.

B. Unless otherwise noted, install indoor free standing panels on 4-inch concrete pad. Extend pad 4-inches beyond outside dimensions of base, all sides. Lay grout after panel sills have been securely fastened down.

C. Unless otherwise noted, install outdoor free standing panels on a reinforced concrete pedestal:
   1. Minimum Thickness: 8-inches with No. 4 steel reinforcing bars at 12-inches on centers, each way.
   2. Minimum Size: 4-inches larger than outer dimensions of base, all sides.
   3. Provide excavation and backfill work in conformance with Section 02260, Excavation Support and Protection.
   4. Provide concrete work in conformance with Section 03300, Cast-In-Place Concrete.
   5. Seal the contact surface between the panel base along the outside perimeter of the panel using RTV sealant.
   6. Install anchor bolts and anchor in accordance with Section 05190, Mechanically Anchoring and Fastening to Concrete and Masonry.

D. Elevated Panels with floor stands:
   1. 1. When installing conduits through bottom, utilize bushings to retain the NEMA rating of the panel.

E. Install each item in accordance with manufacturer's recommendations and in accordance with the Contract Documents.

3.5 RECORD DRAWINGS:

A. Maintain a set of red-line panel drawings to reflect changes or deviations that occur during installation, start-up and commissioning and incorporates these deviations into the final Operation & Maintenance Manual.

3.6 SPARE PARTS AND TEST EQUIPMENT

A. Furnish and deliver the spare parts and test equipment as outlined below, identical and interchangeable with similar parts furnished under this Specification.

B. Pack spare parts in containers suitable for long term storage, bearing labels clearly designating the contents and the pieces of equipment for which they are intended.

C. The following constitutes the minimum spare parts:
   1. Five of each type of control relay for each 40 or less furnished for this Contract.
   2. One replacement power supply for each type and size furnished for this Contract.
   3. One per ten (two, if fewer than twenty) of each type of panel mounted instrument including lights and pushbuttons.
   4. One dozen of each type and size of fuse used in panels and instruments.

D. The following constitutes the minimum test and calibration equipment:
   1. All tooling required to insert, extract and connect any internal or external connector, including edge connectors.
   2. All special calibration equipment required for system calibration.

3.7 TESTING AND ADJUSTMENTS:

A. Perform system testing and make any adjustments necessary in accordance with this Section and Section 17000, Instrumentation.

B. Perform power supply, voltage adjustments to tolerances required by the appurtenant equipment.

C. A Factory Acceptance Test shall be conducted before the panel is shipped to the site.
   1. The Factory Acceptance test shall be witnessed by the ENGINEER and OWNER.
   2. The Factory Acceptance Test Report shall be utilized to document the test.
   3. All Control Panels require the Factory Acceptance Test to be witnessed by ENGINEER and OWNER:
   4. Provide all labor, materials, equipment and incidentals as shown on the Drawings, specified and required to perform factory testing, before shipment, at the manufacturer's facility to verify that system components are functioning properly and that they meet the functional and performance requirements of the Contract Documents.
   5. Submit information on factory testing procedures to verify that testing shall fulfill the requirements as specified herein. Submittal shall be made at least two months in advance of any scheduled testing and shall include dates of scheduled tests.
   6. Notify ENGINEER, in writing, at least four weeks before expected initiation of tests. OWNER and ENGINEER may elect to be present at CONTRACTOR'S facilities during operational test of system equipment, either for individual units
   7. or as an integrated system. Presence of OWNER and ENGINEER during testing does not relieve CONTRACTOR from conforming to the requirements of the Contract Documents and shall in no way imply acceptance of the equipment.

D. System Hardware Operational Testing:
   1. All input/output devices and components shall be tested to verify operability and basic calibration.
   2. All system hardware components equipment shall be tested to verify proper operation of the equipment as stand alone units. Test shall include, but not be limited to, the following:
      a. AC/DC power checks.
      b. Power fail/restart tests.
      c. Diagnostics checks.
      d. Test demonstrating that all specified equipment functional capabilities are working properly.
      e. All system components shall be tested to verify that communication between units is working properly.

3.8 MANUFACTURER'S SERVICE

A. Provide the services of qualified factory-trained service representative to check and approve the installation of the panel(s).

B. The factory trained service representative shall be provided for installation supervision, start-up and testing services. The representative shall make a minimum of 2 visits to the site to approve the completed installation and to perform start-up testing of the equipment. The representative shall coordinate each visit with the ENGINEER prior to arrival on the site. The representative shall test operate the system in the presence of the ENGINEER and verify that the equipment conforms to requirements. The representative shall revisit the job site as often as necessary until the installation and testing is entirely satisfactory.

C. The factory trained service representative shall be provided for operation and maintenance personnel training services. The representative shall make a minimum of 1 visits to the site to perform the services as described under Section 01782, Operations and Maintenance Data. The representative shall coordinate each visit with the ENGINEER prior to arrival on the site.

D. For the factory trained service representative, all costs, including travel, lodging, meals and incidentals, shall be considered as included in the bid price.

E. Warranty: Standard Manufacturers and General Contractor Warranties.

END OF SECTION

SECTION 16170

GROUNDING AND BONDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Division 1, General Requirements, Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes grounding of electrical systems and equipment. Grounding requirements specified in this Section may be supplemented by special requirements of systems described in other Sections.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Product Data: For the following:
   1. Ground rods.
   2. Grounding conductors and cables.
   3. Connector products.
      Submit Shop Drawings identifying each ground rod location, distance between Ground Rods and ground rod assemblies and other grounding electrodes. Identify each by letter in alphabetical order, add a key legend including GPS coordinates.

C. Qualification Data: For firms and persons specified in Paragaph 1.4 of this Specification.

D. Field Test Reports: Submit written test reports to include the following:
   1. Test procedures used.
   2. Test results that comply with requirements.
   3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

1.4 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1. Comply with UL 467.

B. Comply with NFPA 70; for overhead-line construction and medium-voltage underground construction, comply with IEEE C2.

C. Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   1. Grounding Conductors, Cables, Connectors, and Rods:
   2. Apache Grounding/Erico, Inc.
   3. Chance/Hubbell.
   4. Copperweld Corp.
   5. Dossert Corp.
   6. Erico, Inc.; Electrical Products Group.
   7. Framatome Connectors/Burndy Electrical.
   8. Galvan Industries, Inc.
   9. Kearney/Cooper Power Systems.
   10. Korns: C. C. Korns Co.; Division of Robroy Industries.
   11. O-Z/Gedney Co.; a business of the EGS Electrical Group.
   12. Raco, Inc.; Division of Hubbell.
   13. Superior Grounding Systems, Inc.
   14. Thomas & Betts, Electrical.

2.2 GROUNDING CONDUCTORS

A. For insulated conductors, comply with Sections 16123 and 16124, Conductors and Cables.

B. Material: Copper.

C. Equipment Grounding Conductors: Insulated with green-colored insulation.

D. Isolated Ground Conductors: Insulated with green-colored insulation with yellow stripe. On feeders with isolated ground, use colored tape, alternating bands of green and yellow tape to provide a minimum of three bands of green and two bands of yellow.

E. Grounding Electrode Conductors: Stranded cable.

F. Underground Conductors: Bare, tinned copper, stranded, unless otherwise indicated.

G. Bare Copper Conductors: Comply with the following:
   1. Solid Conductors: ASTM B3.
   2. Assembly of Stranded Conductors: ASTM B8.
   3. Tinned Conductors: ASTM B33.

H. Copper Bonding Conductors: As follows:
   1. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG copper conductor, 1/4-inch in diameter.
   2. Bonding Conductor: No. 4 or No. 6 AWG, stranded copper conductor.
   3. Bonding Jumper: Bare copper tape, braided bare copper conductors, terminated with copper ferrules; 1-5/8-inches wide and 1/16-inch thick.
   4. Tinned Bonding Jumper: Tinned-copper tape, braided copper conductors, terminated with copper ferrules; 1-5/8-inches wide and 1/16-inch thick.

I. Grounding Bus: Bare, annealed copper bars of rectangular cross-section, with insulators.

2.3 CONNECTOR PRODUCTS

A. Comply with IEEE 837 and UL 467; listed for use for specific types, sizes, and combinations of conductors and connected items.

B. Bolted Connectors: Bolted pressure-type connectors.

C. Welded Connectors: Exothermic welded type, in kit form, and selected per manufacturer's written instructions.

2.4 GROUNDING ELECTRODES

A. Ground Rods: Copper-clad steel.
   1. Size: 3/4-inch in diameter by 120-inches long.

B. Ground Rods: Sectional type; copper-clad steel.
   1. Size: 3/4-inch in diameter by 120-inches long.

PART 3 - EXECUTION

3.1 APPLICATION

A. Use only copper conductors for both insulated and bare grounding conductors in direct contact with earth, concrete, masonry, crushed stone, and similar materials.

B. In raceways, use insulated equipment grounding conductors.

C. Exothermic Welded Connections: Use for connections to structural steel and for underground connections, except those at test wells.

D. Equipment Grounding Conductor Terminations: Use bolted pressure clamps.

E. Ground Rod Clamps at Test Wells: Use bolted pressure clamps with at least two bolts.

F. Grounding Bus: Install in electrical and telephone equipment rooms, in rooms housing service equipment, and elsewhere as indicated.
   1. Use insulated spacer, space 1-inch from wall and support from wall 6-inches above finished floor, unless otherwise indicated.
   2. At doors, route the bus up to the top of the door frame, across the top of the doorway, and down to the specified height above the floor.

G. Underground Grounding Conductors: Use copper conductor, No. 4/0 AWG minimum. Bury at least 24-inches below grade or bury 12-inches above duct bank when installed as part of the duct bank.

3.2 EQUIPMENT GROUNDING CONDUCTORS

A. Comply with NFPA 70, Article 250, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by NFPA 70 are indicated.

B. Install equipment grounding conductors in all feeders and circuits.
   1. Install insulated equipment grounding conductor with circuit conductors for the following items, in addition to those required by NEC:
   2. Feeders and branch circuits.
   3. Lighting and Receptacle circuits.
   4. Control Circuits.
   5. Single-phase motor and appliance branch circuits.
   6. 3-phase motor and appliance branch circuits.
   7. Flexible raceway runs.
   8. Armored and metal-clad cable runs.

C. Busway Supply Circuits: Install insulated equipment grounding conductor from the grounding bus in the switchgear, switchboard, or distribution panel to equipment grounding bar terminal on busway.

D. Computer Outlet Circuits: Install insulated equipment grounding conductor in branch-circuit runs from computer-area power panels or power distribution units.

E. Isolated Grounding Receptacle Circuits: Install an insulated equipment grounding conductor connected to the receptacle grounding terminal. Isolate grounding conductor from raceway and from panelboard grounding terminals. Terminate at

equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.

F. Isolated Equipment Enclosure Circuits: For designated equipment supplied by a branch circuit or feeder, isolate equipment enclosure from supply raceway with a non-metallic raceway fitting listed for the purpose. Install fitting where raceway enters enclosure, and install a separate equipment grounding conductor. Isolate equipment grounding conductor from raceway and from panelboard grounding terminals. Terminate at equipment grounding conductor terminal of the applicable derived system or service, unless otherwise indicated.

G. Non-metallic Raceways: Install an equipment grounding conductor in non-metallic raceways unless they are designated for telephone or data cables.

H. Signal and Communication Systems: For telephone, alarm, voice and data, and other communication systems, provide No. 4 AWG minimum insulated grounding conductor in raceway from grounding electrode system to each service location, terminal cabinet, wiring closet, and central equipment location.
   1. Service and Central Equipment Locations and Wiring Closets: Terminate grounding conductor on a 1/4-inch by 2-inch by 12-inch grounding bus.
   2. Terminal Cabinets: Terminate grounding conductor on cabinet grounding terminal.

I. Metal Poles Supporting Outdoor Lighting Fixtures: Provide a grounding electrode in addition to installing a separate equipment grounding conductor with supply branch circuit conductors.

3.3 COUNTERPOISE

A. Ground the steel framework of the building with a driven ground rod at the base of every corner column and at intermediate exterior columns at distances not more than 60 feet apart. Provide a grounding conductor (counterpoise), electrically connected to each ground rod and to each steel column, extending around the perimeter of the building. Use tinned-copper conductor not less than No. 4/0 AWG for counterpoise and for tap to building steel. Bury counterpoise not less than 18-inches below grade and 24-inches from building foundation.

3.4 INSTALLATION

A. Ground Rods: Install at least three rods spaced at least one rod length from each other, and located at least the same distance from other grounding electrodes.
   1. Drive ground rods until tops are 2-inches below finished floor or final grade, unless otherwise indicated.
   2. Interconnect ground rods with grounding electrode conductors. Use exothermic welds, except at test wells and as otherwise indicated. Make connections without exposing steel or damaging copper coating.

B. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.

C. Bonding Straps and Jumpers: Install so vibration by equipment mounted on vibration isolation hangers and supports is not transmitted to rigidly mounted equipment. Use exothermic welded connectors for outdoor locations, unless a disconnect-type connection is required; then, use a bolted clamp. Bond straps directly to the basic structure taking care not to penetrate any adjacent parts. Install straps only in locations accessible for maintenance.

D. Metal Water Service Pipe: Provide insulated copper grounding conductors, in conduit, from building's main service equipment or grounding bus, to main metal water service entrances to building. Connect grounding conductors to main metal water service pipes by grounding clamp connectors. Where a dielectric main water fitting is installed, connect grounding conductor to street side of fitting. Bond metal grounding conductor conduit or sleeve to conductor at each end.

E. Water Meter Piping: Use braided-type bonding jumpers to electrically bypass water meters. Connect to pipe with grounding clamp connectors.

F. Bond interior metal piping systems and metal air ducts to equipment grounding conductors of associated pumps, fans, blowers, electric heaters, and air cleaners. Use braided-type bonding straps.

G. Bond each aboveground portion of gas piping system upstream from equipment shut-off valve.

H. Install test wells as indicated on the Contract Documents.

3.5 CONNECTIONS

A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
   1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer to order of galvanic series.
   2. Make connections with clean bare metal at points of contact.
   3. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

B. Exothermic Welded Connections: Comply with manufacturer's written instructions. Welds that are puffed up or that show convex surfaces indicating improper cleaning are not acceptable.

C. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.

D. Noncontact Metal Raceway Terminations: If metallic raceways terminate at metal housings without mechanical and electrical connection to housing, terminate each conduit with a grounding bushing. Connect grounding bushings with a bare grounding conductor to grounding bus or terminal in housing. Bond electrically non-continuous conduits at entrances and exits with grounding bushings and bare grounding conductors, unless otherwise indicated.

E. Connections at Test Wells: Use compression-type connectors on conductors and make bolted- and clamped-type connections between conductors and ground rods.

F. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.

G. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.

H. Moisture Protection: If insulated grounding conductors are connected to ground rods or grounding buses, insulate entire area of connection and seal against moisture penetration of insulation and cable.

3.6 UNDERGROUND DISTRIBUTION SYSTEM GROUNDING

A. Duct Banks: Install a grounding conductor with at least 50% ampacity of the largest phase conductor in the ductbank.

B. Manholes and Handholes: Install a driven ground rod close to wall and set rod depth to 4-inches above handhole or manhole floor. If necessary, install ground rod before manhole is placed and provide a No. 1/0 AWG bare, tinned-copper conductor from ground rod into manhole through a waterproof sleeve in manhole wall. Protect ground rods passing through concrete floor with a double wrapping of pressure-sensitive tape or heat-shrunk insulating sleeve from 2-inches above to 6-inches below concrete. Seal floor opening with waterproof, non-shrink grout.

C. Connections to Manhole Components: Connect exposed-metal parts, such as inserts, cable racks, pulling irons, ladders, and cable shields within each manhole or handhole, to ground rod or grounding conductor. Make connections with No. 4 AWG minimum, stranded, hard-drawn copper conductor. Train conductors level or plumb around corners and fasten to manhole walls. Connect to cable

armor and cable shields as recommended by manufacturer of splicing and termination kits.

D. Pad-Mounted Transformers and Switches: Install two ground rods and counterpoise circling pad. Ground pad-mounted equipment and noncurrent-carrying metal items associated with substations by connecting them to underground cable and grounding electrodes. Use tinned-copper conductor not less than No. 4/0 AWG for counterpoise and for taps to equipment ground pad. Bury counterpoise not less than 18-inches below grade and 6-inches from the foundation.

3.7 FIELD QUALITY CONTROL

A. See Specification 16920, 3.01, Qualifications, for Independent Third Party Testing organization requirements.

B. Testing: Perform the following field quality control testing:
   1. After installing grounding system but before permanent electrical circuitry has been energized, test for compliance with requirements.
   2. Test completed grounding system at each location where a maximum ground resistance level is specified, at service disconnect enclosure grounding terminal, and at ground test wells. Measure ground resistance not less than two full days after the last trace of precipitation, and without the soil being moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural ground resistance. Perform tests by the fall-of-potential method according to IEEE 81.
   3. Provide Drawings locating each ground rod and ground rod assembly and other grounding electrodes, identify each by letter in alphabetical order, and key to the record of tests and observations. Include the number of rods driven and their depth at each location and include observations of weather and other phenomena that may affect test results. Describe measures taken to improve test results.
      a. Equipment Rated 500 kVA and Less: 10 ohms.
      b. Equipment Rated 500 to 1,000 kVA: 5 ohms.
      c. Equipment Rated More Than 1,000 kVA: 3 ohms.
      d. Substations and Pad-Mounted Switching Equipment: 5 ohms.
      e. Manhole Grounds: 10 ohms.
   4. Excessive Ground Resistance: If resistance to ground exceeds specified values, notify Engineer promptly and include recommendations to reduce ground resistance.

END OF SECTION

SECTION 16225

ELECTRIC MOTORS 250 HORSEPOWER OR LESS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope:
   1. This Section includes alternating current induction motors, 250 horsepower or less, to be provided with the driven equipment. Unless specified otherwise, electric motors shall be provided by the manufacturer of the driven equipment under an assumption of unit responsibility. This Section refers to motors by enclosure type as defined in NEMA MG 1, except as noted.

B. Horsepower Rating:
   1. Motor horsepower ratings noted in individual equipment Specifications are estimates only and it is the responsibility of CONTRACTOR to furnish motors, electric circuits, and other equipment of ample horsepower capacity to operate the equipment furnished without exceeding the manufacturer's nameplate full-load current at rated manufacturer's nameplate voltage. Full-load current information shall be furnished with the individual submittals.

1.2 QUALITY ASSURANCE

A. General: Motors shall be built in accordance with UL 674, UL 1004, NEMA Standard MG 1, and to the requirements specified.

B. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified. In case of conflict between the requirements of this Section and those of the listed documents, the requirements of this Section shall prevail.
   1. AFBMA 9: Load Rating and Fatigue Life for Ball Bearings.
   2. AFBMA 11: Load Ratings and Fatigue Life for Roller Bearings.
   3. IEEE 112: Standard Test Procedures for Polyphase Induction Motors and Generators.
   4. IEEE 841, Standard for Petroleum and Chemical Industry - Totally Enclosed Fan Cooled (TEFC) Squirrel Cage Induction Motors - Up to and Including 500 HP.
   5. NEMA ICS 2: Industrial Control Devices, Controllers and Assemblies.
   6. NEMA ICS 6: Enclosures for Industrial Controls and Systems.
   7. NEMA 250, Enclosures for Electrical Equipment (1000 volts maximum).
   8. NEMA MG 1: Motors and Generators.
   9. NEMA MG1-31: Application Considerations for Constant Speed Motors Used on a Sinusoidal Bus with Harmonic Content and General Purpose Motors Used with Adjustable-Voltage or Adjustable- Frequency Controls or Both.

10. UL.674: Electric Motors and Generators for Use in Class I Division I Hazardous Locations
11. UL 1004: Electric Motors.

C. Factory Tests:
   1. The manufacturer's factory motor Prototype Tests per IEEE Standard 112 Appendix-A on motors through 250 horsepower shall be submitted as Product Data for the motor, and actual factory tests for motors are not required:
      a. Winding resistance in ohms and converted to 25 degree C.
      b. Resistive Unbalance and Quarter Voltage Impedance, as applicable.
      c. Locked-Rotor current (Single phase).
      d. High Potential.
      e. No-Load Excitation (volts, amperes, RPM).
      f. Bearing vibration check.
      g. Efficiency, Power Factor, Current at 115%, 100%, 75%, 50%, and no load.

D. Warranty:
   1. Motors ½ horsepower and greater shall be warranted against defects in materials and workmanship for a period of 5 years under the specified uses and with normal operation and service. This warranty shall be delivered, in writing, to the Owner and shall include, as a minimum, 100 percent full payment coverage for parts and labor during the first 60 months of operation.

1.3 SUBMITTALS

A. Submittals shall include the following:
   1. A copy of this specification section, with addendum updates included, and all referenced and applicable sections, with addendum updates included, with each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements. Check marks shall denote full compliance with a paragraph as a whole. If deviations from the specifications are indicated, and therefore requested by the Contractor, each deviation shall be underlined and denoted by a number in the margin to the right of the identified paragraph, referenced to a detailed written explanation of the reasons for requesting the deviation. The remaining portions of the paragraph not underlined will signify compliance on the part of the Contractor with the specifications. Failure to include a copy of the marked-up specification sections, along with justification(s) for any requested deviations to the specification requirements, with the submittal shall be sufficient cause for rejection of the entire submittal with no further consideration.
   2. Manufacture completed IEEE Standard 841 Date Sheet for AC Squirrel Cage Induction Motors with required factory data of motors supplied.
   3. Speed-Torque curve per 1.2 C Factory Tests.
   4. Factory Test Data: Including Guaranteed Minimum Efficiency for 115% load, 100% load, 75% load, 50% load, and no load.
   5. Guaranteed vibration level when measured per MG 1, Figure 7-6:
      a. Displacement: 0.0025 inch peak-to-peak
      b. Velocity: 0.10 inches per second peak
      c. Acceleration: 1g (gravity) peak.

6. Motor heating curve for motors per 1.2 C Factory Tests.
7. Motor outline, dimensions, and weight.
8. Manufacturer's descriptive information relative to motor features.
9. Response curve where a winding over-temperature device is required.
10. For all inverter duty motors: Manufacturer's certification that the motor is compatible with the adjustable frequency drive to be used.
11. Disassembly and repair documentation.

1.4 POWER SUPPLY VARIATIONS

A. Motors shall operate successfully under running conditions at rated load with +/- 10-percent of rated voltage with rated frequency or +/- 5-percent of rated frequency with rated voltage.

1.5 AMBIENT CONDITIONS

A. Unless specified otherwise, motors shall be suitable for continuous operation at an elevation of approximately 1,200 feet above mean sea level. Motors to be installed outdoors, exposed to the weather, shall be suitable for continuous operation in a 50° C ambient temperature; motors to be installed indoors shall be suitable for continuous operation in 50° C ambient temperature, unless otherwise noted.

1.6 NEMA WINDING TEMPERATURES

A. NEMA MG 1 Table 12-7 motors insulation system maximum winding temperatures in degrees-Centigrade (C), with the degrees-Fahrenheit (F) insulation system class specified herein.
   1. Forty degree-C ambient (104 degree-F) is the basis for temperature rise.
   2. For 50 degree C ambient (122F) and above, refer to the driven equipment specifications for additional requirements.

Insulation System Class	Degrees C / F	Temperature Rise by Resistance
A	140 / 284	NA
B	165 / 329	B-rise: 40 + 80 = 120 Degrees C / 248 F
F	190 / 374	F-rise: 40 + 105 = 145 Degrees C / 293 F
H	215 / 419	H-rise: 40 + 125 = 165 Degrees C / 329 F

1.7 NEMA MOTOR TEMPERATURE PROTECTION TYPES

A. The NEMA design shall limit the temperatures of the windings without using a thermal device:
   1. Type-1: Winding Running and Locked Rotor Over-temperature Protection.
   2. Type-2: Winding Running Over-temperature Protection.

PART 2 - PRODUCTS

2.1 MANUFACTURER'S NAMEPLATES

A. Factory installed manufacturer's nameplates shall be stainless steel with embossed or pre-printed lettering and fastened to the motor frame with Type 316 stainless steel pins. Manufacturer's nameplates shall have stamped on them the motor manufacturer's name, design voltage; number of hertz and phase; horsepower rating; amperage and temperature rise at rated load, full load speed, NEMA code letter, service factor, minimum guaranteed efficiency, model number, AFBMA bearing number, serial number and maintenance manual number in accordance with NEMA MGI-10.40.1.

B. A separate factory installed manufacturer's nameplate shall provide lubrication instructions and a separate manufacturer's nameplate connection diagram for dual voltage motors.

C. Additionally, factory to provide the following information on manufacturer's nameplates or additional manufacturer's nameplates for:
   1. Motors 1/2 horsepower and larger: Indicate the ABMA L-10 rated life for the motor bearings.
   2. Motors 2 to 50 horsepower: Indicate the NEMA nominal efficiency.
   3. Motors 50 horsepower and larger: Indicate NEMA guaranteed minimum efficiency.
   4. Explosion-Proof motors: Indicate UL frame temperature limit code.
   5. Space heater information.
   6. NEMA MG 1 Over Temperature Protection Type Number.

2.2 CONSTRUCTION

A. Unless specified otherwise, all motors provided under this Section shall have the following features of construction and operation:
   1. Motor voltage, speed and enclosures are specified in the detailed equipment Specifications. Motors furnished with equipment shall comply with this Section.
   2. All motors shall be of the motor manufacturer's premium energy-efficient design, different from manufacturer's standard product through the use of premium materials, design and improved manufacturing process that reduces motor losses approximately 40 percent from standard efficient designs.
   3. Motor efficiency shall be determined in accordance with NEMA Standard MG1-12.54.1 and guaranteed minimum full load efficiency labeled on manufacturer's motor nameplate in accordance with NEMA Standard MG1-12.54.2 or MG1-10.40.1 below.
   4. Minimum efficiencies shall not be less than those listed in Paragraph 2.4.E., below.
   5. All motors shall successfully operate under power supply variations in accordance with NEMA MG1-14.30.
   6. All motors shall be NEMA Design B with torque and starting currents in accordance with NEMA MG1-12.35 and 12.37, except in special applications requiring higher starting torques where NEMA Design C is permitted.
   7. All motors shall have a 1.15 service factor. Polyphase integral horsepower motors shall be sized so that, under maximum load conditions imposed by the driven

equipment, for the conditions specified, the manufacturer's motor nameplate rated horsepower and Class B temperature rise will not be exceeded. Motors with a service factor of 1.15 shall be selected for operation within their full load rating without applying the service factor.

8. Each motor shall be of the speed and horsepower specified or required to properly operate the driven equipment, torque characteristics as required by the drive load and suitable for direct coupling or V-belt drive, as shown on the Drawings and specified herein. Motors shall be designed for full voltage starting, unless otherwise specified.
9. Frames shall be of corrosion-resistant cast iron with integrally cast feet or bases. End bells, conduit box and cover and bases shall be cast iron, with precision machined bearing fits, ASTM Type A-48, Class 25 or better. UL approved automatic stainless steel breather drains shall be provided in the lowest part of front and back brackets to allow drainage of condensation on TEFC and explosion proof motors.
10. Each stator core assembly shall consist of stacked lamination made from specially selected electrical sheet silicon steel.
11. Insulation materials shall be non-hygroscopic and meet or exceed Class H definition, utilizing materials and insulation systems evaluated in accordance with IEEE 117 classification tests. Motor temperature rating shall not exceed Class F temperature limits as measured by resistance method when the motor is operated at full load at 1.0 service factor continuously in a maximum ambient temperature of 50° C. Windings shall be copper.
12. Rotor cages for motors 50 HP or less shall be die cast aluminum or fabricated copper. Shafts shall be made from carbon steel. Rotor cages for motors larger than 50 HP shall be copper only.
13. Rotors on frames 213T and above shall be keyed shrunk or welded to shaft and rotating assembly dynamically balanced to NEMA limits in accordance with MG1-12.06. Balance weights, if required, shall be secured to the rotor resistance ring or fan blades by rivets. Machine screws and nuts are prohibited. The entire rotating assembly between bearing inner caps shall be coated with a corrosion-resistant epoxy.
14. Bearings shall be ball, open, single row, deep groove, Conrad type, and shall have a Class 3 internal fit conforming to AFBMA Std. 20. For belted duty applications, drive end bearing may be cylindrical roller type. Bearings shall be selected to provide L-10 rating life of 100,000 hours minimum. Calculations shall be based on external loads using NEMA applications limits in accordance with MG1-14.41 and typical sheave weights and internal loads defined by the manufacturer, including magnetic pull and rotating assembly weight.
15. Bearing temperature rise at rated load shall not exceed 60° C. Temperature rise shall be measured by RTD or thermocouple at bearing outer race. Bearing AFBMA identification number shall be stamped on manufacturer's motor nameplate.
16. Motor lubrication system shall consist of a sealed bearing or a grease inlet on motor bracket with capped grease fitting on inlet, grease relief plug 180 degrees from inlet, grease reservoir in bracket and grease reservoir in cast inner cap. Motor shall be greased by manufacturer with a premium moisture resistant polyuria thickened grease containing rust inhibitors and suitable for operation over temperatures from -25° C to 120° C.

17. All bolt and cap screws shall be of high strength, SAE Grade 5 zinc-plated and chromatic steel. Screwdriver slot fasteners are unacceptable.
18. All motor parts including frame, brackets, fan cover and terminal box shall receive a minimum of two coats of high grade USDA accepted epoxy paint. Motor assembly shall successfully withstand salt spray tests for corrosion in accordance with ASTM B-117 for 96 hours.
19. All motors shall be painted the same color as the driven equipment.
20. Two-speed motors shall be two-winding motors. Two-speed, one-winding consequential-pole motors that require special motor starters are prohibited.

2.3 MOTORS LESS THAN 1/2 HORSEPOWER

A. General:
1. Unless otherwise specified, motors less than 1/2 horsepower shall be squirrel cage, single phase, capacitor start, induction run type. Construction features listed in Paragraph 2.2, above, shall be as normally supplied by the equipment manufacturer. Single phase motors shall have Class B insulation, minimum. Small fan motors may be split-phase or shaded pole type. Windings shall be copper.

B. Rating:
1. Unless otherwise specified, motors shall be rated for operation at 115 volts, single phase, 60 Hz, and shall be continuous-time rated in conformance with NEMA Standard MG 1, Paragraph 10.35. Dual voltage (115/230) rated motors are acceptable if all leads are brought out to the conduit box. Motors shall be non-overloading at all points of the equipment operation.

C. Enclosures:
1. Unless otherwise specified, motors shall have totally enclosed fan cooled or totally enclosed non-ventilated enclosures.

2.4 MOTORS 1/2 HORSEPOWER THROUGH 250 HORSEPOWER

A. General:
1. Unless otherwise specified, motors 1/2 horsepower through 250 horsepower shall be three phase, squirrel cage, full voltage start induction type. Unless otherwise specified, motors shall have a NEMA MG 1-1.16 design letter B or C torque characteristic as required by the driven equipment's starting torque requirements.

B. Rating:
1. Unless otherwise specified, motors shall be rated for operation at 460 volts, 3 phase, 60 Hz, and shall be continuous time rated in accordance with NEMA Standard MG 1, Paragraph 10.35.
2. Motors for variable frequency systems shall not be required to deliver more than 80 percent of the motor's service factor rating by any load imposed by the driven machine at any specified operating condition or any condition imposed by the driven machine's performance curve at maximum operating speed.

C. Enclosure and Insulation:

1. General: Motors shall be classified as Type 1 (Process) and Type 2 (Explosion proof). Enclosures and insulation systems shall be as specified in the following paragraphs. Temperature rise for all motor types shall not exceed that permitted by Note II, Paragraph 12.42, NEMA MG 1. The insulation shall be non-hygroscopic.
   a. Type 1 Motors (Process): Type 1 motors shall be premium energy efficient motors, totally enclosed, fan cooled. All motors shall have Class H insulation with Class B temperature rise. Motors shall conform to IEEE 841. All internal surfaces shall be coated with an epoxy paint. Motors shall be rated for corrosive atmosphere duty.
   b. Type 2 Motors (Explosion proof): Explosion proof motors shall be UL listed in accordance with UL 674 for Class I, Group D hazardous atmospheres. The motor shall have Class H insulation and shall conform to IEEE 841. Steel frame motors will not be permitted. A UL-approved Type 316 stainless steel breather/drain device shall be provided in the motor drain hole. The motor shall be provided with a frame temperature thermostat which meets the UL frame temperature limit code T2A (280°C). The thermostat shall contain an automatically reset, normally closed contact rated two amperes at 115 volts AC.

D. Motors for Variable Frequency Drives:
   1. Motors intended for use with variable frequency drives shall be compatible with the characteristics of the intended variable frequency inverters. Motors shall be Type 1 or Type 2 as specified in the detailed Specification. Insulation for all motors operating with variable frequency drives shall be Class H with Class F temperature rise. Variable frequency drive motors shall be premium energy-efficient motors. Motors shall be capable of withstanding a pulse voltage of at least 1750 volts with a rate of rise up to 750V/micro second. The motors shall be certified by the manufacturer as suitable for inverter duty.
   2. All motors connected to variable frequency drives shall be equiped with shaft grounding rings. Shaft grounding devices must be factory installed or installed by a reputable motor shop with the expertise in the proper installation of the devices. If the shaft grounding devices are not factory installed, a third party shall be engaged to test the installation to ensure no damaging shaft currents are present.

E. Minimum Manufacturer's Nameplate Efficiency: Motor minimum manufacturer's nameplate efficiency, determined in accordance with IEEE 112B testing procedures, when operating on a sinusoidal power source shall conform to the following:

HORSEPOWER RANGE	SPEED, RPM		
	1200	1800	3600
1-2	82.5	84.5	82.5
3-5	89.5	88.5	86.5
7-25	90.2	90.2	89.5
30-60	92.4	92.4	89.8
75-250	94.1	93.7	91.7

F. Vertical Motors:
   1. Unless otherwise specified, vertical motors shall be full voltage with a Type P base specifically designed for vertical installation. Universal position motors are not acceptable. Vertical motors shall have solid shafts, unless otherwise specified. Vertical motors shall conform to either Type 1 or Type 2 motor requirements as specified under Paragraph 2.4.C., above. Thrust bearing rating shall be compatible with the loads imposed by the driven equipment.

G. Conduit Boxes:
   1. CAUTION: External conduit boxes on motors shall be sized to accommodate oversized feeder conductors and as shown on the Drawings shall, in any case, not be less than one size larger than NEMA standards. The conduit boxes shall be diagonally split and rotatable in 90 degree steps. A gasket shall be furnished between the conduit box and frame. Motor leads shall be stranded copper wire, Class H or better insulated, non-wicking, with permanent identifications spaced 1-1/2-inches maximum. Clamp type grounding terminals shall be provided in the conduit boxes.

H. Lifting Eyes:
   1. Motors weighing more than 50 pounds shall be fitted with at least one lifting eye.

I. Current Imbalance:
   1. Current imbalance shall not exceed the values tabulated below when the motor is operating at any load within its service factor rating and is supplied by a balanced voltage system.
      a. Under five horsepower: Ten percent
      b. Five horsepower and above: Ten percent
   2. Imbalance criteria shall be based upon the lowest value measured.

2.5 MOTOR TYPES

A. The following Standard motor types shall conform to the following requirements:
   1. Horizontal Dripproof: Provide horizontal motors with an enclosure that meets NEMA Standard MG 1 for open, dripproof construction. Provide screen over all air openings.
   2. Horizontal Totally Enclosed Fan-Cooled: Provide totally enclosed fan-cooled (TEFC) motors with frame sizes 182 and larger with cast iron frames and end shields. Smaller frame sizes may be constructed of rolled steel with cast metal end shields. Provide motors with condensate drain holes. For frame size 286 and larger, provide automatic breather/drain device in drain hole.
   3. Vertical Weather Protected Type I: Provide vertical motors with an enclosure that meets NEMA Standard MG 1 for weather protected Type I (WP-I) enclosure. Provide screens over all air openings.
   4. Vertical Totally Enclosed Fan-Cooled: Provide vertical motor with an enclosure identical to the requirements for the horizontal TEFC motors.
   5. Explosion proof: Provide all horizontal and vertical motors with TEFC explosion proof enclosures, UL listed for Class 1, Division 1, Group D hazardous atmosphere.

6. Submersible: Submersible motors UL listed for explosion proof atmospheres in accordance with subsequent sections of this specification. In addition, provide submersible motors with two mechanical seals; the lower one outside the motor and protecting the upper one, which is in an oil filled chamber. Provide moisture detector probes in the oil filled seal chamber to indicate the presence of moisture in the seal chamber. Provide a temperature detector and switch rated 3 amperes, 120 volts minimum, set to operate when the internal motor temperature exceeds a preset limit. Provide any relays or solid state controls for separate mounting.
7. Horizontal, Totally Enclosed, Fan-Cooled, Severe Duty: Provide horizontal (TEFC), severe duty motors suitable for contaminated environments, including gasketed conduit box, stainless steel drains, double-shielded bearings, and corrosion resistant paint. Provide motors manufactured by Reliance Electric SXT-XT-XE, Century Type SCE E-Plus, or equal.
8. Vertical, Totally Enclosed, Fan-Cooled, Severe Duty: Provide vertical (TEFC), severe duty motors with the requirements identical to horizontal (TEFC), severe duty motors, above.

2.6 PRODUCT DATA

A. The following information shall be provided for each motor in accordance with the individual equipment specification.
   1. Motor outline, dimensions and weight.
   2. Manufacturer’s general descriptive information relative to motor features.
   3. Where a winding overtemperature device is required, provide a response curve for the temperature device.
   4. Applicable operation and maintenance information specified in Section 01782, Operation and Maintenance Data. Provided overhaul instructions for each motor five HP and over.

2.7 ACCEPTABLE PRODUCTS

A. The following manufacturer's motors generally meet the class and performance requirements of this specification when furnished with appropriate modifications and additional features as specified:
   1. General Electric Inc.
   2. Emerson US Motors.
   3. Siemens.

PART 3 - EXECUTIONGROUNDING AND BONDING

A. Verify the circuit ground cable (green) is identified and connected to the grounding lug terminal in the conduit box.

B. Provide supplementary grounding by installing a bond from the motor frame to the grounding electrode system as indicated on the drawings.

4.2 FIELD TESTING

A. Verify breather/drain fittings have been installed as specified herein.

B. Provide winding insulation resistance testing for motors to be witnessed by owner or engineer before connection is complete. Winding insulation resistance shall be not less than 10-megohm measured with a 1000-VAC megohmmeter at 1-minute at or corrected to 40-degree C.

C. Provide motor phases current imbalance testing to be witnessed by owner or engineer.

D. Test motors in accordance with Specification 16920, Electrical Acceptance Testing.

END OF SECTION

SECTION 16474

MOTOR CONTROL EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes separately mounted combination motor starters (including those supplied with equipment), manual motor starters, separately mounted circuit breakers, and control equipment.

B. Related Sections include, but are not necessarily limited to:
   1. Division 0 ,Bidding Requirements, Contract Forms, and Conditions of the Contract.
   2. Division 1, General Requirements.
   3. Section 16000,Electrical: Basic Requirements.
   4. Section 16170, Grounding.

1.2 QUALITY ASSURANCE

A. Referenced Standards:
   1. American National Standards Institute (ANSI):
      a. C62.41, Guide for Surge Voltages in Low Voltage AC Power Circuits.
   2. Canadian Standards Association (CSA).
   3. Institute of Electrical and Electronics Engineers (IEEE).
   4. National Electrical Manufacturers Association (NEMA):
      a. ICS 2, Industrial Control Devices, Controllers, and Assemblies.
      b. 250, Enclosures for Electrical Equipment (1000 Volt Maximum).
   5. National Fire Protection Association (NFPA):
      a. 70, National Electrical Code (NEC).
   6. Underwriters Laboratories, Inc. (UL):
      a. 845, Electric Motor Control Centers.

B. Miscellaneous:
   1. Verify motor horsepower loads, other equipment loads, and controls from approved shop drawings and notify ENGINEER of any discrepancies.
   2. Verify the required instrumentation and control wiring for a complete system and notify ENGINEER of any discrepancies.

1.3 SUBMITTALS

A. Shop Drawings:
   1. See Section 01300, Submittals, and Section16000, General Electrical Requirements.
   2. Typical wiring diagrams for all control equipment.

B. Operation and Maintenance Manuals:
   1. See Section 01300, Submittals.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
   1. Combination Motor Starters:
      a. General Electric.
      b. Square D.
      c. Cutler Hammer/Westinghouse.
      d. Siemens.
   2. Control Relays:
      a. General Electric.
      b. Square D.
      c. Cutler Hammer/Westinghouse.
      d. Siemens.
   3. Electronic Timers:
      a. Allen-Bradley 700-HR Dial Multifunction Timer.
   4. Timing Relays:
      a. Agastat.
      b. General Electric.
      c. Square D.
      d. Cutler Hammer/Westinghouse.
      e. Siemens.
   5. Enclosures:
      a. Hoffman.
      b. Hammond.
      c. Rittal.
   6. Manual Motor Starters:
      a. General Electric.
      b. Square D.
      c. Cutler Hammer/Westinghouse.
      d. Siemens.
   7. Separately Mounted Circuit Breakers:
      a. General Electric.
      b. Siemens.
      c. Square D.
      d. Cutler Hammer/Westinghouse.
   8. Terminal Blocks:
      a. Entrelec.
      b. Phoenix Contact.
      c. Weidmuller.

d. Or equal.

9. Surge Protection Blocks (SPB):
   a. TELEMATIC, Series SD.
   b. Or equal.

B. Submit requests for substitution in accordance with the General Conditions.

2.2 COMPONENTS

A. Main and Feeder Circuit Breakers in MCC and Separately Mounted:
   1. Molded case thermal magnetic or solid state trip type, with minimum interrupting rating equal to the main bus fault current rating:
   2. Circuit breaker frame sizes 150 A and less:
      a. Non-interchangeable, non-adjustable thermal magnetic trip units.
   3. Circuit breaker frame sizes 225 A and higher:
      a. Interchangeable and adjustable thermal magnetic trip units.
   4. Circuit breaker frame sizes 600 A and greater:
      a. Solid state trip units, unless otherwise noted on the Drawings.
      b. Current sensor or rating plug.
      c. Adjustable current setting: Minimum range 70% to 100% of current sensor or rating plug.
      d. Adjustable instantaneous pickup: Minimum range 3 to 8 times.
      e. On circuit breakers 1,000 A and larger provide integral ground fault protection.
         1) Adjustable pick-up.
         2) Adjustable delay.
   5. All circuit breakers to be provided with padlocking provision in the OFF position for up to three padlocks.
   6. Thermal capability:
      a. Frame size 800 amp continuous and below:
      b. Shall be provided for use at 80% of their continuous rating unless otherwise indicated on the Drawings.
      c. Frame size 1,000 amp continuous and above:
         1) Shall be UL listed for application in their intended enclosure for 100% of their continuous rating.
         2) Wiring associated with these circuit breakers shall have a dry location maximum operating temperature of 90° C.

B. Provide ambient compensated devices.

C. Combination Motor Starters:
   1. Circuit breaker shall be motor circuit protector (MCP) type.
   2. Contactor shall be NEMA rated.
      a. One-half size and IEC sized starters not permitted.
   3. Operating handle shall clearly indicate whether circuit breaker is ON, OFF, or TRIPPED.

a. Provide means to lock each circuit breaker handle in OFF position with cover closed by means of up to three padlocks.
b. Interlock so that circuit breaker must be in OFF position before door can be opened. Provide defeater mechanism for use by authorized personnel.

4. Provide starter unit with ambient compensated, external manually resettable, three bimetallic type overload relays. Coordinate size with actual motor full load current.
   a. For motors with power factor correction capacitors size heater elements to compensate for the capacitors effect on load current.
5. Provide heavy-duty oil tight selector switches, pushbuttons, push-to-test pilot lights, or other devices, as indicated on the Drawings. These devices will be accessible with the door closed.
6. Provide each starter with two extra field reversible NO auxiliary contacts for future use and as shown on the Drawings.
7. Provide each starter with 480/120 V control power transformer fused on primary and secondary side, and rated for 140% of required load.
8. Provide six-digit readout elapsed time meter where indicated on Drawings.
9. Starter units will have the same fault current withstand rating as the MCC main bus fault current withstand rating from which they are fed.
10. Provide each starter with the following status signals, wired to terminal boards.
    a. Motor run contact (N.O.).
    b. Motor stop contact (N.C.).
    c. Auxiliary overload relay contact (N.O.).

D. Selector Switches, Indicating Lights, and Pushbuttons:
1. Heavy-duty oiltight/watertight for unclassified or wet areas.
2. NEMA 4 for outdoor applications or panels specified WP.
3. NEMA 4X for corrosive areas.
4. NEMA 7 and 9 for Class I, Division I, Groups C and D, and Class II, Division I, Groups E, F, and G, hazardous locations.
5. Selector switches shall have standard gloved operator.
6. Pushbuttons shall have standard flush operator.
7. Provide switch positions and contacts:
   a. As specified on Contract Drawings or as necessary for proper control.
8. Switch contacts shall be NEMA A600 rated.
9. Full voltage indicating lights, unless specified otherwise.
10. Provide 100% replacement lamps for indicating lights.
11. Provide one replacement lens for each color indicating light.

E. Control Relays:
1. Provide industrial control relays as specified on the Drawings and as required for proper operation and control of supplied equipment.

2. All control relays shall have 120 V coils capable of operating on line voltage fluctuations of ±10%, unless specified otherwise.
3. Provide contacts for all required control, plus two spares.

F. Time Delay Relays:
1. Provide time delay relays with delayed pickup or release as specified on Drawings. All time delay relays shall operate at 115 VAC ±10%.
2. Heavy duty, solid state construction.
3. Contact Rating: 5A/250V.
4. Provide external adjust dial with 0-30 second range unless specified otherwise.
5. Operating temperature ranges: -18° C to +50° C.
6. Repeat accuracy: ±3% plus ±10ms over specified voltage range.
7. Provide all required contacts plus two N.O.spares.
8. Provide auxiliary relays as required to perform functions specified on Drawings.

G. Terminal Blocks:
1. Terminal blocks shall mount on standard DIN rail, and be of the size required for conductors therein. A minimum of 25% spares shall be provided in each terminal box. No more than two conductors shall be allowed per termination. Jumper bar assemblies shall be installed for interconnecting terminal blocks, distributing power, and signal commons. Terminal blocks shall be UL rated for 600 volts, and 20 aAmps, minimum.
2. Grounding terminal blocks shall be provided for instrumentation cable shields. The terminal blocks shall have distinctive two-color bodies, and shall be mounted to the DIN rail with metal screw down type clamps, providing a positive ground connection. One grounding terminal block shall be installed for every two instrument cables terminated. Grounding terminal blocks shall be UL rated for 600 volts, and 20 amps, minimum.
3. Terminal blocks shall be available in a variety of colors, including red, green, blue, gray, black, yellow, and orange.
4. DIN mount fuse holders shall have blown fuse indicators for DC and AC circuits. Fuse holders shall be of the compression clamp type. Fuse holders shall be UL listed, and rated for 600 volts. Fuse sizes shall not exceed the UL current rating for the fuse holders.
5. DIN rail shall be pre-punched, zinc bichromate plated steel. Symmetrical DIN rail shall be 35 mm x 7.5 mm, minimum.
6. Terminal blocks for 4-20 milliamp signals shall have knife disconnect switches, and accessible test points for testing and measurement of current loop signals, without the need for removing wire terminations.

H. Surge Protection Blocks (SPB):
1. Analog inputs and outputs shall be terminated at surge protection blocks (SPB). The SPBs shall be designed for a working voltage of 32 volts and shall be fused.

2. SPBs shall provide full hybrid line to line protection, and shall have a GDT rating of 10,000 A (8/20μs pulse waveform).
3. SPBs shall be UL 94 V-2 listed.

I. Enclosures and Control Panels:
1. NEMA 12 for unclassified areas.
2. NEMA 4 for outdoor or wet areas.
3. NEMA 4X for corrosive areas.
4. NEMA 7 for Class I hazardous locations.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install as indicated and in accordance with manufacturer's recommendations and instructions.

B. Mount other equipment as shown on the Drawings and per NEC.

C. Ground all equipment per NEC.

3.2 TESTING

A. Test in accordance with Specification 16920, electrical acceptance testing.

END OF SECTION

SECTION 16476

LOW VOLTAGE CIRCUIT BREAKERS

PART 1 - GENERAL

1.1 SCOPE OF WORK

A. The CONTRACTOR shall furnish and install low voltage circuit breakers, as indicated on the Drawings and specified herein.

1.2 SUBMITTALS

A. Products shall be submitted in accordance with Section 16000, General Electrical Requirements, and elsewhere in the Contract Documents, prior to installation.

1.3 QUALITY ASSURANCE

A. The breaker manufacturer's facilities shall be ISO 9001 certified.

PART 2 - PRODUCTS

2.1 GENERAL

A. Circuit breakers shall be as manufactured by Square D, Cutler-Hammer, Allen-Bradley, General Electric, or equal.

B. Circuit breaker frame, trip, short circuit, and interruption ratings shall be as indicated on the Drawings, except that they shall be coordinated with the ratings of the equipment actually furnished, and shall be modified where necessary to suit the equipment. Circuit breakers to be used in motor control centers shall be as indicated on the Drawings. Where no indication of type is given on the Drawings, circuit breakers protecting motors shall be motor circuit protectors and other circuit breakers shall be molded case type.

C. Circuit breaker for mounting in motor control centers or for separate mounting shall be of the air-break type, quick-make and quick-break, 600 volt, with number of poles as indicated on the Drawings.

D. Each pole of the circuit breaker shall provide inverse time delay and instantaneous circuit protection.

E. The breakers shall be operated by a handle and shall have a switching mechanism that is mechanically trip free from the handle, so that the contacts cannot be held closed against short circuits, and abnormal currents. Tripping due to overload, or

short circuit shall be clearly indicated by the handle automatically assuming a position between the manual ON and OFF positions. Latch surfaces shall be ground and polished. Poles shall be constructed so that they open, close, and trip simultaneously.

F. Breakers must be completely enclosed in a molded case. Non-interchangeable trip breakers shall have their covers sealed; interchangeable trip breakers shall have the trip unit sealed to prevent tampering. Ampere ratings shall be clearly visible. Contacts shall be non-welding silver alloy. Arc extinction must be accomplished by means of arc chutes. The minimum interrupting ratings of the circuit breakers shall be at least equal to the available short circuit current at the line terminals.

G. Circuit breakers shall conform to the applicable requirements of NEMA Standards Publication No. AB1.

H. Molded case circuit breakers shall be ambient temperature compensating that provides inverse time delay overload and instantaneous short circuit protection by means of a thermalmagnetic element. Compensation shall be accomplished by a secondary bi-metal that will allow the breaker to carry rated current between 25° C and 50° C with tripping characteristics that are approximately the same throughout this temperature range.

I. On breakers with interchangeable, thermal, adjustable magnetic trip, the accessibility and position of the adjustment knob shall not be changed from those on the standard breaker.

J. Unless mounted in a switchboard, or panelboard, circuit breakers shall be housed in a NEMA rated enclosure as described elsewhere in these specifications.

K. Provide circuit breakers with shunt trip mechanisms where shown on the Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Circuit breakers shall be installed as indicated on the Drawings and per manufacturer's instructions.

END OF SECTION

SECTION 16482

SOLID STATE MOTOR CONTROLLERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Solid state motor controllers (SSMC)* for use with NEMA Design "B" 460 VAC motors to reduce the current inrush as well as mechanical shocks that can result from starting or stopping a motor across the line.
   2. This section pertains to stand-alone solid state motor controllers in addition to those provided as part of a Motor Control Center.
   3. Provide SSMC fully assembled as part of a Motor Control Center or as a standalone controller, ready for field installation, testing, and startup.

*The terms SSMC and SSS (Solid State Starters) can be used interchangeably.

1.2 SUBMITTALS

A. Submit the following in accordance with Specification 16000, General Electrical Requirements:
   1. Complete electrical data on the SSMC and all accessories.
   2. Dimensional and weight information on the enclosure (if applicable).
   3. Fully developed ladder style elementary diagrams complete with terminal and wire designations. Label or tag all control devices.
   4. Comprehensive bill of material for all components used to assemble the finished product.
   5. Anticipated heat load for sizing of building HVAC system.
   6. Verification that unit is listed by an independent testing laboratory in accordance with Electric Industrial Control Equipment Specification UL 508.
   7. List of recommended spare parts for one year operation.

1.3 QUALITY ASSURANCE

A. Final assembly to be provided with a UL 508 label installed at the point of manufacturer.

B. The manufacturer shall be a certified ISO 9002 facility.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Package unit to protect against shipping damage.

B. Store unit in a clean, dry, controlled environment until scheduled installation.

C. Handle units in accordance with manufacturer's recommendations and in such a manner as to prevent damage.

D. Replace any unit damaged as a result of improper shipping, storage, or handling.

1.5 PROJECT/SITE CONDITIONS

A. Unit shall be designed specifically for the environment into which it will be installed.

B. Provide weather protection, space heating to prevent condensation, and cooling or ventilation as recommended by SSMC manufacturer.

C. Provide sufficient clearance and housekeeping pads to allow air circulation and to prevent damage from standing water.

1.6 WARRANTY

A. Provide a one year warranty on materials and workmanship from date of start up or 18 months from date of shipment.

B. An optional extended warranty shall be available for up to an additional two years.

PART 2 - PRODUCT

2.1 MANUFACTURERS

A. Square D Company

B. Eaton.

C. Allen-Bradley.

2.2 GENERAL DESCRIPTION

A. Provided in a configuration suitable for panel mounting.

B. Uses a thyristor bridge consisting of at least two SCRs per phase to control the starting and stopping of industry standard motors. A soft start/current limit will be obtained by a timed voltage ramp of the thyristors. The thyristors will be

controlled in such a manner that a smooth and stable acceleration ramp is ensured, independent of motor load.

C. Controlled by a microprocessor that continuously monitors the current and thyristor phasing of the starter.

D. All soft start power ratings shall use the same control module.

2.3 RATINGS

A. Designed to operate in an ambient temperature of 0° C to 40° C.

B. Storage temperature range shall be -25° C to 70° C.

C. Maximum relative humidity shall be 93% at 40° C, non-condensing.

D. Designed to operate in attitudes up to 3,300 feet. For higher altitudes, de-rate by 1.2% for each additional 330 feet.

E. Capable of operation within -15% to +10% of nominal voltage rating and automatically adapt for 50 Hz or 60 Hz.

F. Capable of supplying 300% of rated full load current for 60 seconds at maximum ambient temperature.

G. The SCRs shall have a minimum P.I.V. rating of 1,400 V. Lower rated SCRs with "protection" by MOVs will not be acceptable.

2.4 ADJUSTMENTS AND CONFIGURATIONS

A. All dialog functions, display units, remote functions, terminal blocks, configuration switches and adjustment potentiometers shall be accessible on the front of the control module. Exposure to control circuit boards or electrical power devices during routine adjustments shall be prohibited.

B. Dialog indication shall provide, as a minimum, the following conditions:
   1. Soft start ready for start.
   2. Soft start starting/stopping motor.
   3. Soft start running at full voltage.
   4. Thermal pre-alarm condition.
   5. Thermal fault.
   6. Soft start internal fault.
   7. Power supply fault.

C. Dip switches shall be used for configuring the soft start and will select:
   1. Manual or automatic reset.
   2. Freewheel or controlled stopping.

3. Stop by deceleration ramp or DC injection braking.
4. Full voltage boost on start (on or off).

D. Potentiometers or keypads shall be used for adjusting the operating parameters and will provide:
   1. Motor full load amps adjustable from 50% to 100% of the controller's current rating.
   2. Current limitation on starting adjustable from 2 to 5 times rated motor current.
   3. Voltage ramp adjustable from 1 to 30 seconds.
   4. Deceleration ramp or DC injection time adjustable from 2 to 60 seconds.

E. Output relays shall provide the following status indications:
   1. Fault Trip or Soft Start: One Form A and one Form B, minimum.
   2. Thermal Pre-alarm: One Form A and one Form B or one Form C, minimum.
   3. End of Start (voltage ramp complete and current below 130% motor FLA): One Form A.
   4. Brake (for control of braking contactor if this function is specified): One Form A.

F. Relay functions listed above must be isolated with respect to common.

2.5 PROTECTION

A. A microprocessor controlled thermal protection system shall be included, which continuously calculates the temperature-rise of the motor and soft start and provides:
   1. An overload pre-alarm which indicates by relay contact that the motor has exceeded its rated temperature rise by 100%. This function shall be annunciated only without resulting in fault trip of the motor.
   2. A thermal fault condition which stops the motor if the temperature-rise exceeds 120% of the motor thermal capability.
   3. An analog electronic circuit with a time constant adjustable to the motor's thermal cooling time constant ensuring the memorization of the thermal state even after power supply disconnection or shorting out of the power semiconductors.

B. The soft start shall have phase loss, phase unbalance, and under voltage protection.

2.6 CONTROL OPTIONS

A. Provide lockable disconnecting means to isolate the SSMC from incoming power. Disconnect may be either fused or circuit breaker style as shown on the Contract Drawings.

B. Provide lights, pushbuttons, selector switches, indicators, run time meters, and other accessories as shown on the Contract Documents in accordance with Section 16161, Control Panels.

C. Provide control relays in accordance with Section 16161, Control Panels.

D. Provide a control power transformer, 480:120 V, sized to accommodate all the control circuit requirements in addition to 25% spare capacity.

E. The soft start shall accept control logic either by operator devices (pushbuttons, selector switches, etc.) wired directly into the unit or from external relay logic.

F. Provide warning label in accordance with the NEC if power is available from more than one source.

G. Provide nameplates identifying all panel mounted equipment and operator controls.

2.7 SHORTING CONTACTOR

A. A microprocessor shall control the operation of the shorting contactor via an output relay.

B. The shorting contactor shall close, shorting the thyristors after the motor current is below 130% of motor FLA and voltage is below nominal voltage (indicating the acceleration ramp is complete), and open on a stop command to allow a deceleration ramp or DC injection stop.

C. Overload protection shall continue to protect the motor when shorting is used.

2.8 BRAKING CONTACTOR

A. If required by Contract Drawings, a microprocessor shall control the operation of the braking contactor via an output relay.

B. If an overload condition occurs during the injection brake period, braking shall continue as set. When braking is complete, restart shall be prohibited until the motor has cooled.

2.9 ISOLATION AND BYPASS CONTACTORS

A. If required by contract drawings, provide NEMA rated 3-pole isolation contactor to completely isolate the SSMC from the incoming power in the event of a shorted SCR or another defined fault condition.

B. If required by contract drawings, provide NEMA rated 3-pole reversing style contactor to both isolate the output of the SSMC, as well as allow across-the-line starting of the motor.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Mount the SSMC in accordance with manufacturer's recommendations.

B. Provide sufficient clearance for air circulation and operation of any vent fans or cooling equipment.

C. Install conduit, pull and terminate all power and control conductors.

3.2 TESTING

A. Test in accordance with Specification 16920, Electrical Acceptance Testing.

END OF SECTION

SECTION 16951

SHORT CIRCUIT, COORDINATION, AND ARC-FLASH HAZARD REPORT

PART 1 - GENERAL

1.1 DESCRIPTION

A. General:
   1. Prepare a short circuit analysis, protective device coordination study, and an arc flash hazard analysis for the project electrical power source and distribution system for the new facility and any modified existing electrical equipment.
   2. The short circuit, coordination study, and arc flash hazard report shall provide an evaluation of the electrical power system with the model numbers and settings of the protective devices.

B. Scope:
   1. Perform and provide a complete short circuit analysis with equipment interrupting or withstand rating evaluation and a protective device coordination study for the electrical power distribution system serving the facility.
   2. Include all portions of the electrical power distribution system from the utility primary service drop through 12.47 kV, 480 V (including motor loads) and 120/208 V lighting panels.
   3. Electrical equipment bus impedance shall be assumed to be zero. Short circuit momentary duties and interrupting duties shall be calculated on the basis of maximum available fault current at each project power source or power distribution equipment including switchgear, switchboard, motor control center, and branch circuit panelboards.
   4. A protective device coordination study shall be performed to determine proper selection of power fuse ratings, protective relay characteristics and settings, ratios and characteristics of associated voltage and current transformers, and circuit breaker trip characteristics and settings.
   5. The coordination study shall include all voltage classes of equipment from the utility's closest upstream protective device to existing and new equipment including switchgear, switchboards, motor control centers, and 120 volt panelboards main circuit protection.
   6. 120 /208 V panelboard branch circuit devices need not be considered. The phase overcurrent and ground-fault protection shall be included, settings for the adjustable protective devices, and electrical metering and monitoring devices.
   7. Provide an arc flash hazard analysis to warn personnel of the dangers of live exposed electrical equipment. Provide appropriate labeling for electrical equipment per NFPA 70E that indicates the flash hazard boundaries, incident

energy available, and the required PPE (Personal Protective Equipment) level.

8. An equipment evaluation study shall be performed to determine the adequacy of existing or proposed electrical equipment by tabulating and comparing the short circuit ratings with the available fault currents.
9. Problem areas or inadequacies in the proposed equipment shall be identified in the report.

1.2 REFERENCES

A. This Section contains references to the following documents and they are part of this section as specified and modified. In case of conflict between the requirements of this Section and those of the listed documents, the requirements of this section shall prevail.
   1. IEEE 141, Recommended Practice for Electrical Power Distribution for Industrial Plants.
   2. IEEE 242, Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems.
   3. IEEE 1584, IEEE Guide for Performing Arc Flash Hazard Calculations.
   4. NFPA 70E, Standard for Electrical Safety Requirements for Employee Workplaces.

1.3 SUBMITTAL SCHEDULE

A. The report shall be submitted with the major electrical distribution equipment and switchgear detailed product submittal.

B. The ENGINEER reviewed report shall be corrected, revised, and resubmitted as required. The report will be reviewed along with the electrical distribution and switchgear product submittal.

C. The CONTRACTOR shall distribute the ENGINEER accepted report to the major electrical distribution equipment and switchgear manufacturers before the electrical distribution equipment and switchgear is manufactured.

D. Provide an electronic copy, on CD-Rom, of the protective device coordination study results and model files, as generated by the study software

E. The report specified herein shall be provided in accordance with Contract Documents.

F. Provide arc flash hazard warning labels for all electrical distribution equipment as indicated in section 1.1.B.

PART 2 - PRODUCTS

2.1 REPORT

A. The report shall be sealed and signed by the responsible electrical engineer, summarize the short circuit analysis, protective device coordination study, arc flash hazard analysis, potential problem issues, conclusions, and recommendations that may affect the integrity of the project power distribution system. As a minimum, the report shall include the following.
   1. The equipment manufacturer's information used to prepare the study.
   2. Assumptions made during the study.
   3. Short circuit calculations listing short circuit levels at each bus.
   4. Simplified single line diagrams generated by the study software.
   5. Coordination study time-current curves including the instrument transformer ratios, model numbers of the protective relays, relay settings, and trip unit settings associated with each breaker.
   6. Arc flash hazard analysis calculations.
   7. Comparison of short circuit duties of each bus to the withstand and interrupting capacity of the equipment protecting that bus.
   8. Data used as input to the report including cable impedance, source impedance, equipment ratings, equipment time-current curves etc.

PART 3 - EXECUTION

3.1 GENERAL

A. Provide the short circuit analysis, coordination study, and arc flash hazard analysis for the electrical power distribution system using SKM System Analysis, Inc. Power Tools, or equal.

B. The studies shall be performed in accordance with IEEE Standards 141, 242, 1584, and NFPA 70E and shall utilize the ANSI; method of short circuit analysis in accordance with ANSI C37.010.

C. The studies shall be performed using actual equipment data for the new equipment. The analysis and study shall use the equipment and protective device data provided by the electrical distribution equipment manufacturer for the Project.

3.2 SHORT CIRCUIT ANALYSIS

A. The Short Circuit Analysis and Report shall include the following.
   1. One-Line Diagram:
      a. Location and function of each protective device in the system, such as relays, direct-acting trips, fuses, etc.

b. Type designation, current rating, range or adjustment, manufacturer's style and catalog number for all protective devices.
c. Power, voltage ratings, impedance, primary and secondary connections of all transformers.
d. Type, manufacturer, and ratio of all instrument transformers energizing each relay.
e. Sources of short circuit currents such as utility ties, generators, synchronous motors, and induction motors.

2. Impedance Diagram:
   a. Available MVA or impedance from the power utility company.
   b. Local generated capacity impedance.
   c. Bus impedance.
   d. Transformer and/or reactor impedance.
   e. Cable impedance.
   f. Equipment impedance.
   g. System voltages.
   h. Grounding scheme (resistance grounding, solid grounding, or no grounding).
3. Calculations:
   a. Determine the paths and situations where short circuit currents are the greatest.
   b. Assume bolted faults and calculate the 3-phase and line-to-ground short circuits of each case.
   c. Calculate the maximum and minimum fault currents.

3.3 PROTECTIVE DEVICE COORDINATION STUDY

A. The time-current characteristics of the specified and indicated protective devices shall be plotted on 5-cycle, log-log graph paper with a maximum of eight protective devices per plot. The coordination study time-current plots shall, at a minimum, include the following:
   1. Time-current for each protective relay or fuse showing graphically that the settings will provide protection and selectivity within industry standards. Each curve shall be identified, and the tap and time settings shall be specified.
   2. Time-current curves for each device shall be positioned to provide for maximum selectivity to minimize system disturbances during fault clearing. Reasonable coordination intervals and separation of characteristic curves shall be maintained.
   3. Where selectivity cannot be achieved, the report shall indicate the cause and recommend alternative solutions. Time-current curves and points for cable and equipment damage and symmetrical and asymmetrical fault currents.
   4. Circuit interrupting device operating and interrupting times.
   5. Indicate maximum fault values on the graph.
   6. Sketch of bus and breaker arrangement.

3.4 ARC FLASH HAZARD ANALYSIS

A. Calculated arc flash boundaries, incident energies, and PPE requirements shall be published in the study report as well as displayed on the report one-line diagrams. Study Engineer needs to evaluate settings, make recommendations and evaluate impact to process operations. Coordinate with Owner.

B. Provide a direct printout of warning signs and labels using the study software.

3.5 STUDY FIRM

A. The report for the short circuit analysis and protective device coordination study indicating results shall be performed, stamped, and signed by an Electrical Engineer registered in the State where the Project is located.

B. The CONTRACTOR shall provide the ENGINEER with submittal information for the electrical products used for the Project.

C. The ENGINEER performing the study must visit the Project site after equipment is installed and modify the study as required, and resubmit the study.

END OF SECTION

SECTION 17325

TURBIDITY AND TSS ANALYZER

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Turbidity and suspended solids sensor for monitoring water and sludge concentrations and turbidity values.

1.2 MEASUREMENT PROCEDURES

A. The method of measuring turbidity and suspended solids will be with a dual-beam infrared/scattered light photometer. LED light source transmits light at 45 degrees to the sensor face.
   1. Nephelometric photoreceptors will detect scattered light at 90 degrees to the transmitted beam for turbidity.
   2. Back-scatter photoreceptors will detect scattered light at 140 degrees to the transmitted beam for suspended solids.

1.3 ALTERNATES

A. Other methods of turbidity and suspended solids measurement, such as four-beam or surface scatter methods, are not acceptable.

1.4 SYSTEM DESCRIPTION

A. Performance Requirements:
   1. Measurement range:
      a. Turbidity: 0.001 to 4000 NTU.
      b. Suspended solids: 0.001 mg/l to 50 g/L (ts-line or inline), or 0.001 mg/l to 500 g/L (hs line or highline).
   2. Accuracy:
      a. Turbidity: Less than 1% of reading or ±0.001 NTU, whichever is greater.
      b. Suspended solids: Less than 5% of reading (depends on homogeneity of municipal activated sludge).
   3. Repeatability:
      a. Turbidity: Less than 1% of reading.
      b. Suspended solids: Less than 3% of reading (depends on homogeneity of municipal activated sludge).
   4. Detection limit:
      a. Turbidity: 0.001 NTU.
      b. Suspended solids: 0.001 mg/L.
   5. Response time: Initial response 1 second.
   6. Signal Averaging Time: User selectable ranging from 1 to 300 seconds.

7. Units of measure:
    a. Turbidity: User Selectable NTU, FNU, EBC, FTU and TE/F.
    b. Suspended Solids: User Selectable g/L, mg/L, ppm, or % solids.

1.5 CERTIFICATIONS

A. Safety: Listed by ETL to UL 61010A-1: Certified by ETL to CSA C22.2 No. 1010.1.

B. EMC Emissions & Immunity: CE certified to EN 61326-1/A1, /A2 & EN 61010-1/A1, /A2.

1.6 ENVIRONMENTAL REQUIREMENTS

A. Operational Criteria:
    1. Sample flow velocity: 3 m/s (9.8 ft./s) maximum.
    2. Sample pressure: 6 bar (87 psi) maximum.
    3. Sample temperature: 0 to 40 degrees C.
    4. Operating temperature: 0 to 40 degrees C.

1.7 WARRANTY

A. The product includes a one-year warranty from the date of shipment.

1.8 MAINTENANCE SERVICE

A. Scheduled maintenance:
    1. Clean measurement windows: as experience dictates.
    2. Change wiper blades: from 3 to 6 months (depending on the application).
    3. Replace probe seals: every two years.

B. Unscheduled maintenance: Clean instrument enclosure.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Hach Company, Loveland, CO.
    1. Model SOLITAX ts-line sc Turbidity and Suspended Solids Sensor for immersion in open tanks.

2.2 MANUFACTURED UNIT

A. The SOLITAX Turbidity and Suspended Solids Sensor consists of a sensor contained in stainless steel or PVC, depending on model, with a silicon wiper blade and integral cable.

2.3 EQUIPMENT

A. The SOLITAX sensor is a digital sensor designed to connect to a universal controller (the sc100 or sc1000 controller, 120VAC rated).

B. The sensor provides sample color-independent measurement.

C. The sensor is equipped with a self-cleaning device to prevent erroneous values and maintenance problems caused by biological activity, scum build-up, and gas bubbles.

D. The signal average time for the sensor is user-selected from 1 to 300 seconds.

E. The sensor measures turbidity or turbidity and suspended solids (depending on the sensor).

F. The sensor must be serviceable.

G. The sensor is factory calibrated and needs no calibration prior to use. The sensor shall be capable of immersion in tank or insertion in pipe.

2.4 COMPONENTS

A. Standard equipment:
   1. Sensor with 33 ft. (10m) cable.
   2. Manual.

B. Dimensions:
   1. Models t-line sc, ts-line sc, and hs-line sc for immersion:
      a. Length: 7.87 inches (200 mm).
      b. Diameter: 2.36 inches high (60 mm).
   2. Models inline sc and highline sc for insertion:
      a. Length: 12.40 inches (315 mm).
      b. Diameter: 2.36 inches high (60 mm) C. Weight.
   3. Models inline sc and highline sc for insertion: 5.3 lb. (2.4 kg).
   4. Models t-line sc, ts-line sc, and hs-line sc for immersion:
      a. Stainless steel: 3.0 lb. (1.38 kg).
      b. PVC: 1.2 lb. (0.52 kg).

2.5 ACCESSORIES

A. Calibration kit.

B. Wiper blades.

C. Sun shield for controller.

D. Installation:

1. Fixed point installation kit for immersion.
2. Insertion mounting kit.
3. Sensor adapters.
4. Handrail mounting kit.

E. Extension cables.

PART 3 - EXECUTION

3.1 PREPARATION

A. Immersion sensors: Install the sensor with the optical window facing downstream in the direction of the flow to protect the sensor against the oncoming flow of large objects.

B. Insertion sensors:
   1. Pipe diameter: minimum 4 inches (100 mm) diameter in carbon or stainless steel.
   2. Install minimum 5 ft. (1.5 m) or three times the pipe diameter (whichever is greater) downstream of pumps, valves, or pipe elbows.

C. Locate the sensor 33 ft. (10 m) from the controller with the standard sensor cable. (Maximum distance between sensor and controller of 328 ft. (100 m) with optional extension cables.)

3.2 INSTALLATION

A. Contractor will install the analyzer in strict accordance with the manufacturer's instructions and recommendation.

B. Manufacturer's representative will include a half-day of start-up service by a factory-trained technician, if requested.
   1. Contractor will schedule a date and time for start-up.
   2. Contractor will require the following people to be present during the start-up procedure.
      a. General contractor.
      b. Electrical contractor.
      c. Hach Company factory trained representative.
      d. Owner's personnel.
      e. Engineer.

3.3 MANUFACTURER'S SERVICE AND START-UP

A. Contractor will include the manufacturer's services to perform start-up on instrument to include basic operational training and certification of performance of the instrument.

B. Contractor will include a manufacturer's Service Agreement that covers all the manufacturer's recommended preventative maintenance, regularly scheduled calibration and any necessary repairs beginning from the time of equipment startup through to end user acceptance / plant turnover and the first 12 months of end-user operation post turnover.

C. Items A and B are to be performed by manufacturer's factory-trained service personnel. Field service and factory repair by personnel not employed by the manufacturer is not allowed.

D. Use of manufacturer's service parts and reagents is required. Third-party parts and reagents are not approved for use.

END OF SECTION

SECTION 17454

OPERATIONS AND CONTROL DESCRIPTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Operation and control descriptions.

B. New SCADA programming and graphic screens shall follow the conventions of the existing SCADA application.

C. CONTRACTOR shall coordinate with the ENGINEER during SCADA programming of the process control descriptions. Any deviation from the following Specification shall be approved by the ENGINEER before programming. Any programming that is required and not specified herein shall be the responsibility of the CONTRACTOR. All additional SCADA programming logic shall be approved by the ENGINEER before programming.

D. See additional OIT screen development under Operator Interface Terminal Software and Hardware specification 17455.

1.2 RELATED SECTIONS

A. Section 17000, Instrumentation.

B. Section 11400, Disc Filtration System.

C. Section 11221, Mixers and Accessories.

1.3 COMMON CONTROL FUNCTIONS

A. Alarms:
   1. Discrepancy Alarms: Each device capable of being controlled by SCADA in REMOTE mode shall have a discrepancy alarm, which shall be displayed at the SCADA workstations. The discrepancy alarms shall be derived as follows:
      a. Device is commanded to start, and the starter auxiliary contact or VFD does not echo the command after an operator-adjustable time delay.
      b. Device is commanded to stop, and the starter auxiliary contact or VFD does not echo the command after an operator-adjustable time delay.
      c. Device is commanded to open, and the open limit switch does not echo the opened condition after an operator-adjustable time delay. An initial setting of two times the normal full travel time shall be used.
      d. Device is commanded to close, and the closed limit switch does not echo the closed condition after an operator-adjustable time delay. An initial setting of two times the normal full travel time shall be used.

e. For modulating valves or gates, the alarm shall activate if the valve position is not within 2 percent of scale of the set point position after an operator-adjustable time delay.
f. The discrepancy alarms shall only be active if the LOCAL/REMOTE selector switch at the device is in REMOTE mode.
g. Once a discrepancy alarm occurs, the SCADA shall terminate the command to the device. The command to the device cannot be reinitiated until the discrepancy alarm is acknowledged by the operator from the SCADA workstation.

2. Alarms Based on Analog Measurements shall be derived by the SCADA workstation as follows:
   a. The SCADA workstation shall derive alarms by comparing the process measurement to an operator-adjustable set point.
3. Within SCADA program logic, configure each alarm to eliminate nuisance alarms that would otherwise activate when equipment is not in operation. For example, a low flow alarm on a pump discharge shall not be activated if the pump is off.
4. All alarms derived in the SCADA, whether from analog measurements, discrete inputs, or discrepancy alarms, shall have a proving timer to limit nuisance alarms. The SCADA shall start the timer when it first detects an alarm condition, and shall only activate the alarm after the timer has expired. If the alarm condition clears while the timer is running, the timer shall be reset, and the alarm shall not be activated.
5. Flow Totalizers: Each liquid flow rate transmitted to the SCADA shall have a flow total calculated by the SCADA as follows:
6. The current day's total flow shall be calculated by the SCADA and displayed at the SCADA workstation.
7. These flow totals shall be calculated and displayed even if they are not shown on the P&IDs (Process and Instrumentation Drawings).
8. PID Control Algorithms:
9. Each PID control algorithm shall have a faceplate that shall be displayed at the DCS workstation. The face plate shall have the following functions:
10. Display process variable.
11. Display set point.
12. Display output.
13. Allow for operator selection of automatic or manual control of output.
14. Under manual control of output allow the operator to enter the desired output value.
15. Allow for input of the three PID tuning parameters.
16. The PID algorithm shall include set point and output tracking to provide bumpless control when switching between control modes.
17. Data Validation:
18. The SCADA workstation graphic screens shall accept manually entered set point data only if it is within valid process range.
19. The SCADA workstation shall require low-low set point to be lower than a low set point, high-high set point higher than a high set point, etc.

1.4 SUBMITTALS.

A. Submit software and program in accordance with Section 17000, Instrumentation.

1.5 DISC FILTER SYSTEM (AWRF)

A. Summary:
   1. The Airport WRF will be updated with a Disc Filter System upstream of the Chlorine Contact Basins (CCB's). Refer to Specification Section 11400, Disc Filter System.
      a. Effluent from the secondary clarifiers flows via gravity through a 42" pipe to the rapid mix basins, flocculation basins, and then to the common filter influent channel. Flow is then distributed to the disc filter basins. The filter influent enters the filter basins by flowing over an influent weir, submerging the disks. Under normal operation, the disks are stationary.
      b. The cloth media filters are designed to continuously remove particulates from the flow steam. As the influent passes through the cloth on each side of the disc, solids are built up on the cloth surface, creating a mat. Other, heavier solids settle to the bottom of the filter basin. The filtrate is conveyed via the center tube to the effluent chamber and over an effluent weir, into the common filter effluent channel. The filter effluent is then conveyed to the chlorine contact basins.
      c. As the amount of particulates on and within the pile cloth media increases, the static pressure required to pass water through the pile cloth media increases. This results in an increased water level within the filter basin and increased differential pressure (headloss) on the pile cloth media. Backwash mode cleans the pile cloth media by drawing from the filtered side of the pile cloth media. This reverse flow dislodges particulates embedded in the pile cloth media and restores it to a clean condition
      d. Upon reaching a specific number of backwash cycles performed, or an elapsed time, the solids waste mode will be automatically initiated. Solids on the floor of the filter basin are collected via a perforated manifold that is attached to the backwash/waste pump.
      e. Backwash and solids wastewater are transported back to the IPS.
      f. The filter manufacturer shall be responsible for implementing all the detailed control strategies for each filter in each vendor supplied LCP/PLC.

   P&ID: See Sheets I-1.61 to I-1.79.

B. Components:
   1. Equipment:

Associated Disc Filter Unit(s)	Item Description	Item Tag
DS1	Control Panel	VCP-DS1
DS1	Power Panel	VPP-DS1
DS1	Drive Unit	FDU-DS1
DS1	Drive Unit Disconnect Switch	DSC-FDU-DS1
DS1	Motorized Inlet Gate	EDR-DS1
DS1	Solids Waste Valve 1	MOV-DS1-SW1
DS1	Backwash Valve 1	MOV-DS1-BW1
DS1	Backwash Valve 2	MOV-DS1-BW2
DS1	Backwash Valve 3	MOV-DS1-BW3
DS1	Backwash Valve 4	MOV-DS1-BW4
DS1	Backwash Valve 5	MOV-DS1-BW5
DS1	Backwash Valve 6	MOV-DS1-BW6
DS1	Backwash Valve 7	MOV-DS1-BW7
DS1	Solids Waste Valve 2	MOV-DS1-SW2
DS1	Backwash Pump A	BWP-DS1-A
DS1	Backwash Pump A Disconnect Switch	DSC-BWP-DS1A
DS1	Backwash Pump B	BWP-DS1-B
DS1	Backwash Pump B Disconnect Switch	DSC-BWP-DS1B
DS2	Control Panel	VCP-DS2
DS2	Power Panel	VPP-DS2
DS2	Drive Unit	FDU-DS2
DS2	Drive Unit Disconnect Switch	DSC-FDU-DS2
DS2	Motorized Inlet Gate	EDR-DS2

DS2	Solids Waste Valve 1	MOV-DS2-SW1
DS2	Backwash Valve 1	MOV-DS2-BW1
DS2	Backwash Valve 2	MOV-DS2-BW2
DS2	Backwash Valve 3	MOV-DS2-BW3
DS2	Backwash Valve 4	MOV-DS2-BW4
DS2	Backwash Valve 5	MOV-DS2-BW5
DS2	Backwash Valve 6	MOV-DS2-BW6
DS2	Backwash Valve 7	MOV-DS2-BW7
DS2	Solids Waste Valve 2	MOV-DS2-SW2
DS2	Backwash Pump A	BWP-DS2-A
DS2	Backwash Pump A Disconnect Switch	DSC-BWP-DS2A
DS2	Backwash Pump B	BWP-DS2-B
DS2	Backwash Pump B Disconnect Switch	DSC-BWP-DS2B
DS3	Control Panel	VCP-DS3
DS3	Power Panel	VPP-DS3
DS3	Drive Unit	FDU-DS3
DS3	Drive Unit Disconnect Switch	DSC-FDU-DS3
DS3	Motorized Inlet Gate	EDR-DS3
DS3	Solids Waste Valve 1	MOV-DS3-SW1
DS3	Backwash Valve 1	MOV-DS3-BW1
DS3	Backwash Valve 2	MOV-DS3-BW2
DS3	Backwash Valve 3	MOV-DS3-BW3
DS3	Backwash Valve 4	MOV-DS3-BW4
DS3	Backwash Valve 5	MOV-DS3-BW5
DS3	Backwash Valve 6	MOV-DS3-BW6

DS3	Backwash Valve 7	MOV-DS3-BW7
DS3	Solids Waste Valve 2	MOV-DS3-SW2
DS3	Backwash Pump A	BWP-DS3-A
DS3	Backwash Pump A Disconnect Switch	DSC-BWP-DS3A
DS3	Backwash Pump B	BWP-DS3-B
DS3	Backwash Pump B Disconnect Switch	DSC-BWP-DS3B
DS4	Control Panel	VCP-DS4
DS4	Power Panel	VPP-DS4
DS4	Drive Unit	FDU-DS4
DS4	Drive Unit Disconnect Switch	DSC-FDU-DS4
DS4	Motorized Inlet Gate	EDR-DS4
DS4	Solids Waste Valve 1	MOV-DS4-SW1
DS4	Backwash Valve 1	MOV-DS4-BW1
DS4	Backwash Valve 2	MOV-DS4-BW2
DS4	Backwash Valve 3	MOV-DS4-BW3
DS4	Backwash Valve 4	MOV-DS4-BW4
DS4	Backwash Valve 5	MOV-DS4-BW5
DS4	Backwash Valve 6	MOV-DS4-BW6
DS4	Backwash Valve 7	MOV-DS4-BW7
DS4	Solids Waste Valve 2	MOV-DS4-SW2
DS4	Backwash Pump A	BWP-DS4-A
DS4	Backwash Pump A Disconnect Switch	DSC-BWP-DS4A
DS4	Backwash Pump B	BWP-DS4-B
DS4	Backwash Pump B Disconnect Switch	DSC-BWP-DS4B
DS5	Control Panel	VCP-DS5

DS5	Power Panel	VPP-DS5
DS5	Drive Unit	FDU-DS5
DS5	Drive Unit Disconnect Switch	DSC-FDU-DS5
DS5	Motorized Inlet Gate	EDR-DS5
DS5	Solids Waste Valve 1	MOV-DS5-SW1
DS5	Backwash Valve 1	MOV-DS5-BW1
DS5	Backwash Valve 2	MOV-DS5-BW2
DS5	Backwash Valve 3	MOV-DS5-BW3
DS5	Backwash Valve 4	MOV-DS5-BW4
DS5	Backwash Valve 5	MOV-DS5-BW5
DS5	Backwash Valve 6	MOV-DS5-BW6
DS5	Backwash Valve 7	MOV-DS5-BW7
DS5	Solids Waste Valve 2	MOV-DS5-SW2
DS5	Backwash Pump A	BWP-DS5-A
DS5	Backwash Pump A Disconnect Switch	DSC-BWP-DS5A
DS5	Backwash Pump B	BWP-DS5-B
DS5	Backwash Pump B Disconnect Switch	DSC-BWP-DS5B
DS6	Control Panel	VCP-DS6
DS6	Power Panel	VPP-DS6
DS6	Drive Unit	FDU-DS6
DS6	Drive Unit Disconnect Switch	DSC-FDU-DS6
DS6	Motorized Inlet Gate	EDR-DS6
DS6	Solids Waste Valve 1	MOV-DS6-SW1
DS6	Backwash Valve 1	MOV-DS6-BW1
DS6	Backwash Valve 2	MOV-DS6-BW2

DS6	Backwash Valve 3	MOV-DS6-BW3
DS6	Backwash Valve 4	MOV-DS6-BW4
DS6	Backwash Valve 5	MOV-DS6-BW5
DS6	Backwash Valve 6	MOV-DS6-BW6
DS6	Backwash Valve 7	MOV-DS6-BW7
DS6	Solids Waste Valve 2	MOV-DS6-SW2
DS6	Backwash Pump A	BWP-DS6-A
DS6	Backwash Pump A Disconnect Switch	DSC-BWP-DS6A
DS6	Backwash Pump B	BWP-DS6-B
DS6	Backwash Pump B Disconnect Switch	DSC-BWP-DS6B
NA	Monorail Hoist Disconnect Switch	DSC-CRN-500
NA	Monorail Hoist E-Stop	ES-CRN-500
DS1/DS2	Sump Pump Motor Control Panel No. 1	MCP-SP-1
DS1/DS2	Sump Pump No. 1	PMP-SP-1
DS1/DS2	Sump 1 Low Level Switch	LSL-710
DS1/DS2	Sump 1 High Level Switch	LSH-710
DS1/DS2	Sump 1 High High Level Switch	LSHH-710
DS3/DS4	Sump Pump Motor Control Panel No. 2	MCP-SP-2
DS3/DS4	Sump Pump No. 2	PMP-SP-2
DS3/DS4	Sump 2 Low Level Switch	LSL-720
DS3/DS4	Sump 2 High Level Switch	LSH-720
DS3/DS4	Sump 2 High High Level Switch	LSHH-720
DS5/DS6	Sump Pump Motor Control Panel No. 3	MCP-SP-3
DS5/DS6	Sump Pump No. 3	PMP-SP-3
DS5/DS6	Sump 3 Low Level Switch	LSL-730

DS5/DS6	Sump 3 High Level Switch	LSH-730
DS5/DS6	Sump 3 High High Level Switch	LSHH-730

2. Instruments:

Associated Disc Filter Unit(s)	**Item Description**	**Item Tag**
DS1	Pressure Transducer	LIT-DS1-100
DS1	High Level Float Switch	LSH-DS1-100
DS1	Effluent Chamber Turbidity Probe	AE-DS1-100
DS1	Vacuum Transmitter No. 1	VT-DS1-101
DS1	Vacuum Transmitter No. 2	VT-DS1-102
DS1	Vacuum Indicator No. 1	VT-DS1-101
DS1	Pressure Indicator No. 1	PI-DS1-133
DS1	Vacuum Indicator No. 2	VT-DS1-102
DS1	Pressure Indicator No. 2	PI-DS1-143
DS1	Effluent Chamber Turbidity Analyzer	AIT-DS1-100
DS2	Pressure Transducer	LIT-DS2-200
DS2	High Level Float Switch	LSH-DS2-200
DS2	Effluent Chamber Turbidity Probe	AE-DS2-200
DS2	Vacuum Transmitter No. 1	VT-DS2-201
DS2	Vacuum Transmitter No. 2	VT-DS2-202
DS2	Vacuum Indicator No. 1	VI-DS2-232
DS2	Pressure Indicator No. 1	PI-DS2-233
DS2	Vacuum Indicator No. 2	VI-DS2-242
DS2	Pressure Indicator No. 2	PI-DS2-243

DS2	Effluent Chamber Turbidity Analyzer	AIT-DS2-200
DS3	Pressure Transducer	LIT-DS3-300
DS3	High Level Float Switch	LSH-DS3-300
DS3	Effluent Chamber Turbidity Probe	AE-DS3-300
DS3	Vacuum Transmitter No. 1	VT-DS3-301
DS3	Vacuum Transmitter No. 2	VT-DS3-302
DS3	Vacuum Indicator No. 1	VI-DS3-332
DS3	Pressure Indicator No. 1	PI-DS3-333
DS3	Vacuum Indicator No. 2	VI-DS3-342
DS3	Pressure Indicator No. 2	PI-DS3-343
DS3	Effluent Chamber Turbidity Analyzer	AIT-DS3-300
DS4	Pressure Transducer	LIT-DS4-100
DS4	High Level Float Switch	LSH-DS4-400
DS4	Effluent Chamber Turbidity Probe	AE-DS4-400
DS4	Vacuum Transmitter No. 1	VT-DS4-401
DS4	Vacuum Transmitter No. 2	VT-DS4-402
DS4	Vacuum Indicator No. 1	VI-DS4-432
DS4	Pressure Indicator No. 1	PI-DS4-433
DS4	Vacuum Indicator No. 2	VI-DS4-442
DS4	Pressure Indicator No. 2	PI-DS4-443
DS4	Effluent Chamber Turbidity Analyzer	AIT-DS4-400
DS5	Pressure Transducer	LIT-DS5-500
DS5	High Level Float Switch	LSH-DS5-500
DS5	Effluent Chamber Turbidity Probe	AE-DS5-500
DS5	Vacuum Transmitter No. 1	VT-DS5-501

DS5	Vacuum Transmitter No. 2	VT-DS5-502
DS5	Vacuum Indicator No. 1	VI-DS5-532
DS5	Pressure Indicator No. 1	PI-DS5-533
DS5	Vacuum Indicator No. 2	VI-DS5-542
DS5	Pressure Indicator No. 2	PI-DS5-543
DS5	Effluent Chamber Turbidity Analyzer	AIT-DS5-500
DS6	Pressure Transducer	LIT-DS6-600
DS6	High Level Float Switch	LSH-DS6-600
DS6	Effluent Chamber Turbidity Probe	AE-DS6-600
DS6	Vacuum Transmitter No. 1	VT-DS6-601
DS6	Vacuum Transmitter No. 2	VT-DS6-602
DS6	Vacuum Indicator No. 1	VI-DS6-632
DS6	Pressure Indicator No. 1	PI-DS6-633
DS6	Vacuum Indicator No. 2	VI-DS6-642
DS6	Pressure Indicator No. 2	PI-DS6-643
DS6	Effluent Chamber Turbidity Analyzer	AIT-DS6-600

C. Hard-Wired Safety Interlocks:
   1. The Filter Drive will automatically stop on motor overload.
   2. The Backwash/Solids Waste Pump will automatically stop on low-level alarm.
   3. The Backwash/Solids Waste Pump will automatically stop on motor overload.
   4. The Backwash high water level set elevation will not go above 1220.68’.

D. Control Modes:
   1. Remote Auto (DCS):
      a. Disc Filter Influent Gate:
         1) Place all disc filter influent gates in the REMOTE position at the respective gate LCP.
         2) The disc filter inlet gate will open by pressing the OPEN button from individual filter control page at DCS.

3) The disc filter influent gate will close by pressing the CLOSE button from individual filter control page at DCS.

b. Backwash/Solids Waste Cycle

1) Place all vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6, H-O-A switches in the AUTO position. Place the LEVEL or TIMED selector switch, at the vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6 in the proper position dependent on operations.

2) Place all backwash valves/solids waste valve(s) in the REMOTE position.

3) Place all backwash/solids wasting pump(s) in the REMOTE position.

4) Place the filter drive unit in the REMOTE position.

5) The disc filter system will start operation in normal filtration mode when set to ENABLE.

6) The backwash/solids waste pump(s) will start automatically when a backwash is initiated by either LEVEL or TIME, dependent on operations.

7) The backwash/solids waste valve(s) will operate automatically during backwash/solids wasting.

8) Backwash interval is set on the Individual Filter Control page from DCS.

9) Backwash high water level for automatic backwash is set on the Individual Filter Control page from DCS.

10) Backwash count to initiate sludge wasting is set on the Individual Filter Control page from DCS.

11) Solids wasting interval (time) is set on the Individual Filter Control page from DCS.

12) The disc filter system will stop operation when set to DISABLE.

2. Remote Hand

a. Disc Filter Influent Gate:

1) Place all disc filter influent gates in the REMOTE position at the respective gate LCP.

2) The disc filter inlet gate will open by pressing the OPEN button from individual filter control page at DCS.

3) The disc filter influent gate will close by pressing the CLOSE button from individual filter control page at DCS.

b. Backwash/Solids Waste Cycle:

1) Place all vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400, LOCAL-OFF-REMOTE switches in the REMOTE position.

2) Place all backwash/solids wasting pump(s) in the REMOTE position.

3) The Backwash/Solids Waste Pump(s) will start by pressing the START BACKWASH button from individual filter control page at SCADA.

4) The Backwash/Solids Waste Pump(s) will stop when the backwash/solids waste cycle is complete.

5) Place all backwash valves/solids waste valve(s) in the AUTO position.

6) The Backwash/Solids Waste Valves(s) will open automatically during a backwash/solids waste cycle.
7) The Backwash/Solids Waste Valve(s) will close automatically during a backwash/solids waste cycle.
8) Place the filter drive unit in the AUTO position.
9) The Filter Drive Motor will start by pressing the START BACKWASH button from individual filter control page at SCADA.
10) The Filter Drive Motor will stop when the backwash/solids waste cycle is complete.
11) Backwash interval is set on the Individual Filter Control page from SCADA.
12) Backwash high water level for automatic backwash is set on the Individual Filter Control page from SCADA.
13) Backwash count to initiate sludge wasting is set on the Individual Filter Control page from SCADA.
14) Solids wasting interval (time) is set on the Individual Filter Control page from SCADA.

3. Local Auto:
   a. Disc Filter Influent Gate:
      1) Place all disc filter influent gates in the LOCAL position at the respective gate LCP.
      2) The disc filter inlet gate will open by pressing the OPEN button from the gate LCP.
      3) The disc filter influent gate will close by pressing the CLOSE button from the gate LCP.
   b. Backwash/Solids Waste Cycle:

      1) Place all vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6, H-O-A switches in the AUTO position. Place the LEVEL or TIMED selector switch, at the vendor control panels VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6 in the proper position dependent on operations.

      2) Place all backwash valves/solids waste valve(s) in the LOCAL position.

      3) Place all backwash/solids wasting pump(s) in the LOCAL position.

      4) Place the filter drive unit in the LOCAL position.

      5) The disc filter system will start operation in normal filtration mode when the disc filter influent gate is open.

      6) The backwash/solids waste pump(s) will start automatically when a backwash is initiated by either LEVEL or TIME, dependent on operations.

      7) The backwash/solids waste valve(s) will operate automatically during backwash/solids wasting.

      8) Backwash interval is set locally at the vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.

      9) Backwash high water level for automatic backwash is set locally at the vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.

10) Backwash count to initiate sludge wasting is set locally at the vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.

11) Solids wasting interval (time) is set locally at the vendor control panels, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.

12) The disc filter system will stop operation when the disc filter influent gate is closed.

4. Local Hand
   a. Disc Filter Influent Gate:
      1) Place all disc filter influent gates in the LOCAL position.
      2) The disc filter influent gates will open by placing the panel L-O-R switch in the LOCAL position and pressing the OPEN pushbutton.
      3) The disc filter influent gates will close by placing the panel L-O-R switch in the HAND position and pressing the CLOSE pushbutton.
   b. Backwash/Solids Waste Pump(s):
      1) The backwash/solids waste pump(s) is controlled locally at the vendor control panel, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.
      2) The Backwash/Solids Waste Pump(s) START/STOP button is located at the vendor control panel, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.
      3) The Backwash/Solids Waste Pump(s) will start by placing the panel H-O-A switch in the HAND position and pressing the START pushbutton.
      4) The Backwash/Solids Waste Pump(s) will stop by placing the panel H-O-A switch in the HAND position and pressing the STOP pushbutton.
   c. Backwash/Solids Waste Valve(s):
      1) The backwash/solids waste valve(s) is controlled locally at the vendor control panel, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.
      2) The Backwash/Solids Waste Valve(s) OPEN/CLOSE button is located at the vendor control panel, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.
      3) The Backwash/Solids Waste valve(s) actuator will open and close the valve using the OPEN/STOP/CLOSE controls at the valve actuator when the LOCAL-OFF-REMOTE switch is set to LOCAL.
   d. Filter Drive Unit
      1) The Filter Drive Motor is controlled locally at the vendor control panel, VCP-DS1, VCP-DS2, VCP-DS3, VCP-DS4, VCP-DS5 and VCP-DS6.
      2) The Filter Drive Motor is started by placing the panel H-O-A switch in the HAND position and pressing the START pushbutton.
      3) The Filter Drive Motor is stopped by placing the panel H-O-A switch in the HAND position and pressing the STOP pushbutton.

E. Monitor: The following data will be monitored by DCS:
   1. Disc Filter System No. 1 High Level Status
   2. Disc Filter System No. 1 Filter Drive Unit (FDU) in AUTO/HAND status
   3. Disc Filter System No. 1 Filter Drive Unit (FDU) in OFF status
   4. Disc Filter System No. 1 Filter Drive Unit (FDU) RUN status
   5. Disc Filter System No. 1 Backwash Duration (time) status
   6. Disc Filter System No. 1 Solids Wasting Duration (time) status
   7. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
   8. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 in OFF status
   9. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 RUN status
   10. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 in OFF status
   11. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 RUN status
   12. Disc Filter System No. 1 Backwash Valve 1 Open Status
   13. Disc Filter System No. 1 Backwash Valve 1 Closed Status
   14. Disc Filter System No. 1 Backwash Valve 2 Open Status
   15. Disc Filter System No. 1 Backwash Valve 2 Closed Status
   16. Disc Filter System No. 1 Backwash Valve 3 Open Status
   17. Disc Filter System No. 1 Backwash Valve 3 Closed Status
   18. Disc Filter System No. 1 Backwash Valve 4 Open Status
   19. Disc Filter System No. 1 Backwash Valve 4 Closed Status
   20. Disc Filter System No. 1 Backwash Valve 5 Open Status
   21. Disc Filter System No. 1 Backwash Valve 5 Closed Status
   22. Disc Filter System No. 1 Backwash Valve 6 Open Status
   23. Disc Filter System No. 1 Backwash Valve 6 Closed Status
   24. Disc Filter System No. 1 Backwash Valve 7 Open Status
   25. Disc Filter System No. 1 Backwash Valve 7 Closed Status
   26. Disc Filter System No. 1 Solids Waste Valve 1 Open Status
   27. Disc Filter System No. 1 Solids Waste Valve 1 Closed Status
   28. Disc Filter System No. 1 Solids Waste Valve 2 Open Status
   29. Disc Filter System No. 1 Solids Waste Valve 2 Closed Status
   30. Disc Filter System No. 2 Disc Filter Influent Gate Open Status
   31. Disc Filter System No. 2 High Level Status
   32. Disc Filter System No. 2 Filter Drive Unit (FDU) in AUTO/HAND status
   33. Disc Filter System No. 2 Filter Drive Unit (FDU) in OFF status
   34. Disc Filter System No. 2 Filter Drive Unit (FDU) RUN status
   35. Disc Filter System No. 2 Backwash Duration (time) status
   36. Disc Filter System No. 2 Solids Wasting Duration (time) status
   37. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
   38. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 in OFF status
   39. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 RUN status
   40. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 in OFF status
   41. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 RUN status
   42. Disc Filter System No. 2 Backwash Valve 1 Open Status
   43. Disc Filter System No. 2 Backwash Valve 1 Closed Status

44. Disc Filter System No. 2 Backwash Valve 2 Open Status
45. Disc Filter System No. 2 Backwash Valve 2 Closed Status
46. Disc Filter System No. 2 Backwash Valve 3 Open Status
47. Disc Filter System No. 2 Backwash Valve 3 Closed Status
48. Disc Filter System No. 2 Backwash Valve 4 Open Status
49. Disc Filter System No. 2 Backwash Valve 4 Closed Status
50. Disc Filter System No. 2 Backwash Valve 5 Open Status
51. Disc Filter System No. 2 Backwash Valve 5 Closed Status
52. Disc Filter System No. 2 Backwash Valve 6 Open Status
53. Disc Filter System No. 2 Backwash Valve 6 Closed Status
54. Disc Filter System No. 2 Backwash Valve 7 Open Status
55. Disc Filter System No. 2 Backwash Valve 7 Closed Status
56. Disc Filter System No. 2 Solids Waste Valve 1 Open Status
57. Disc Filter System No. 2 Solids Waste Valve 1 Closed Status
58. Disc Filter System No. 2 Solids Waste Valve 2 Open Status
59. Disc Filter System No. 2 Solids Waste Valve 2 Closed Status
60. Disc Filter System No. 3 Disc Filter Influent Gate Open Status
61. Disc Filter System No. 3 High Level Status
62. Disc Filter System No. 3 Filter Drive Unit (FDU) in AUTO/HAND status
63. Disc Filter System No. 3 Filter Drive Unit (FDU) in OFF status
64. Disc Filter System No. 3 Filter Drive Unit (FDU) RUN status
65. Disc Filter System No. 3 Backwash Duration (time) status
66. Disc Filter System No. 3 Solids Wasting Duration (time) status
67. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
68. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 in OFF status
69. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 RUN status
70. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 in OFF status
71. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 RUN status
72. Disc Filter System No. 3 Backwash Valve 1 Open Status
73. Disc Filter System No. 3 Backwash Valve 1 Closed Status
74. Disc Filter System No. 3 Backwash Valve 2 Open Status
75. Disc Filter System No. 3 Backwash Valve 2 Closed Status
76. Disc Filter System No. 3 Backwash Valve 3 Open Status
77. Disc Filter System No. 3 Backwash Valve 3 Closed Status
78. Disc Filter System No. 3 Backwash Valve 4 Open Status
79. Disc Filter System No. 3 Backwash Valve 4 Closed Status
80. Disc Filter System No. 3 Backwash Valve 5 Open Status
81. Disc Filter System No. 3 Backwash Valve 5 Closed Status
82. Disc Filter System No. 3 Backwash Valve 6 Open Status
83. Disc Filter System No. 3 Backwash Valve 6 Closed Status
84. Disc Filter System No. 3 Backwash Valve 7 Open Status
85. Disc Filter System No. 3 Backwash Valve 7 Closed Status
86. Disc Filter System No. 3 Solids Waste Valve 1 Open Status
87. Disc Filter System No. 3 Solids Waste Valve 1 Closed Status
88. Disc Filter System No. 3 Solids Waste Valve 2 Open Status

89. Disc Filter System No. 3 Solids Waste Valve 2 Closed Status
90. Disc Filter System No. 4 Disc Filter Influent Gate Open Status
91. Disc Filter System No. 4 High Level Status
92. Disc Filter System No. 4 Filter Drive Unit (FDU) in AUTO/HAND status
93. Disc Filter System No. 4 Filter Drive Unit (FDU) in OFF status
94. Disc Filter System No. 4 Filter Drive Unit (FDU) RUN status
95. Disc Filter System No. 4 Backwash Duration (time) status
96. Disc Filter System No. 4 Solids Wasting Duration (time) status
97. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
98. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 in OFF status
99. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 RUN status
100. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 in OFF status
101. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 RUN status
102. Disc Filter System No. 4 Backwash Valve 1 Open Status
103. Disc Filter System No. 4 Backwash Valve 1 Closed Status
104. Disc Filter System No. 4 Backwash Valve 2 Open Status
105. Disc Filter System No. 4 Backwash Valve 2 Closed Status
106. Disc Filter System No. 4 Backwash Valve 3 Open Status
107. Disc Filter System No. 4 Backwash Valve 3 Closed Status
108. Disc Filter System No. 4 Backwash Valve 4 Open Status
109. Disc Filter System No. 4 Backwash Valve 4 Closed Status
110. Disc Filter System No. 4 Backwash Valve 5 Open Status
111. Disc Filter System No. 4 Backwash Valve 5 Closed Status
112. Disc Filter System No. 4 Backwash Valve 6 Open Status
113. Disc Filter System No. 4 Backwash Valve 6 Closed Status
114. Disc Filter System No. 4 Backwash Valve 7 Open Status
115. Disc Filter System No. 4 Backwash Valve 7 Closed Status
116. Disc Filter System No. 4 Solids Waste Valve 1 Open Status
117. Disc Filter System No. 4 Solids Waste Valve 1 Closed Status
118. Disc Filter System No. 4 Solids Waste Valve 2 Open Status
119. Disc Filter System No. 4 Solids Waste Valve 2 Closed Status
120. Disc Filter System No. 5 Disc Filter Influent Gate Open Status
121. Disc Filter System No. 5 High Level Status
122. Disc Filter System No. 5 Filter Drive Unit (FDU) in AUTO/HAND status
123. Disc Filter System No. 5 Filter Drive Unit (FDU) in OFF status
124. Disc Filter System No. 5 Filter Drive Unit (FDU) RUN status
125. Disc Filter System No. 5 Backwash Duration (time) status
126. Disc Filter System No. 5 Solids Wasting Duration (time) status
127. Disc Filter System No. 5 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
128. Disc Filter System No. 5 Backwash/Solids Waste Pump 1 in OFF status
129. Disc Filter System No. 5 Backwash/Solids Waste Pump 1 RUN status
130. Disc Filter System No. 5 Backwash/Solids Waste Pump 2 in OFF status
131. Disc Filter System No. 5 Backwash/Solids Waste Pump 2 RUN status
132. Disc Filter System No. 5 Backwash Valve 1 Open Status

133. Disc Filter System No. 5 Backwash Valve 1 Closed Status
134. Disc Filter System No. 5 Backwash Valve 2 Open Status
135. Disc Filter System No. 5 Backwash Valve 2 Closed Status
136. Disc Filter System No. 5 Backwash Valve 3 Open Status
137. Disc Filter System No. 5 Backwash Valve 3 Closed Status
138. Disc Filter System No. 5 Backwash Valve 4 Open Status
139. Disc Filter System No. 5 Backwash Valve 4 Closed Status
140. Disc Filter System No. 5 Backwash Valve 5 Open Status
141. Disc Filter System No. 5 Backwash Valve 5 Closed Status
142. Disc Filter System No. 5 Backwash Valve 6 Open Status
143. Disc Filter System No. 5 Backwash Valve 6 Closed Status
144. Disc Filter System No. 5 Backwash Valve 7 Open Status
145. Disc Filter System No. 5 Backwash Valve 7 Closed Status
146. Disc Filter System No. 5 Solids Waste Valve 1 Open Status
147. Disc Filter System No. 5 Solids Waste Valve 1 Closed Status
148. Disc Filter System No. 5 Solids Waste Valve 2 Open Status
149. Disc Filter System No. 5 Solids Waste Valve 2 Closed Status
150. Disc Filter System No. 6 Disc Filter Influent Gate Open Status
151. Disc Filter System No. 6 High Level Status
152. Disc Filter System No. 6 Filter Drive Unit (FDU) in AUTO/HAND status
153. Disc Filter System No. 6 Filter Drive Unit (FDU) in OFF status
154. Disc Filter System No. 6 Filter Drive Unit (FDU) RUN status
155. Disc Filter System No. 6 Backwash Duration (time) status
156. Disc Filter System No. 6 Solids Wasting Duration (time) status
157. Disc Filter System No. 6 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
158. Disc Filter System No. 6 Backwash/Solids Waste Pump 1 in OFF status
159. Disc Filter System No. 6 Backwash/Solids Waste Pump 1 RUN status
160. Disc Filter System No. 6 Backwash/Solids Waste Pump 2 in OFF status
161. Disc Filter System No. 6 Backwash/Solids Waste Pump 2 RUN status
162. Disc Filter System No. 6 Backwash Valve 1 Open Status
163. Disc Filter System No. 6 Backwash Valve 1 Closed Status
164. Disc Filter System No. 6 Backwash Valve 2 Open Status
165. Disc Filter System No. 6 Backwash Valve 2 Closed Status
166. Disc Filter System No. 6 Backwash Valve 3 Open Status
167. Disc Filter System No. 6 Backwash Valve 3 Closed Status
168. Disc Filter System No. 6 Backwash Valve 4 Open Status
169. Disc Filter System No. 6 Backwash Valve 4 Closed Status
170. Disc Filter System No. 6 Backwash Valve 5 Open Status
171. Disc Filter System No. 6 Backwash Valve 5 Closed Status
172. Disc Filter System No. 6 Backwash Valve 6 Open Status
173. Disc Filter System No. 6 Backwash Valve 6 Closed Status
174. Disc Filter System No. 6 Backwash Valve 7 Open Status
175. Disc Filter System No. 6 Backwash Valve 7 Closed Status
176. Disc Filter System No. 6 Solids Waste Valve 1 Open Status
177. Disc Filter System No. 6 Solids Waste Valve 1 Closed Status

178. Disc Filter System No. 6 Solids Waste Valve 2 Open Status
179. Disc Filter System No. 6 Solids Waste Valve 2 Closed Status

F. Alarms: The following alarms and indications are available in all control modes:
1. Disc Filter System No. 1 Filter Drive Unit (FDU) FAIL
2. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 FAIL
3. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 FAIL
4. Disc Filter System No. 1 Backwash Valve 1 FAIL
5. Disc Filter System No. 1 Backwash Valve 2 FAIL
6. Disc Filter System No. 1 Backwash Valve 3 FAIL
7. Disc Filter System No. 1 Backwash Valve 4 FAIL
8. Disc Filter System No. 1 Backwash Valve 5 FAIL
9. Disc Filter System No. 1 Backwash Valve 6 FAIL
10. Disc Filter System No. 1 Backwash Valve 7 FAIL
11. Disc Filter System No. 1 Solids Waste Valve 1 FAIL
12. Disc Filter System No. 1 Solids Waste Valve 2 FAIL
13. Disc Filter System No. 1 Level alarm high
14. Disc Filter System No. 1 Emergency Stop Activated
15. Disc Filter System No. 1 High turbidity alarm
16. Disc Filter System No. 2 Filter Drive Unit (FDU) FAIL
17. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 FAIL
18. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 FAIL
19. Disc Filter System No. 2 Backwash Valve 1 FAIL
20. Disc Filter System No. 2 Backwash Valve 2 FAIL
21. Disc Filter System No. 2 Backwash Valve 3 FAIL
22. Disc Filter System No. 2 Backwash Valve 4 FAIL
23. Disc Filter System No. 2 Backwash Valve 5 FAIL
24. Disc Filter System No. 2 Backwash Valve 6 FAIL
25. Disc Filter System No. 2 Backwash Valve 7 FAIL
26. Disc Filter System No. 2 Solids Waste Valve 1 FAIL
27. Disc Filter System No. 2 Solids Waste Valve 2 FAIL
28. Disc Filter System No. 2 Level alarm high
29. Disc Filter System No. 2 Emergency Stop Activated
30. Disc Filter System No. 2 High turbidity alarm
31. Disc Filter System No. 3 Filter Drive Unit (FDU) FAIL
32. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 FAIL
33. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 FAIL
34. Disc Filter System No. 3 Backwash Valve 1 FAIL
35. Disc Filter System No. 3 Backwash Valve 2 FAIL
36. Disc Filter System No. 3 Backwash Valve 3 FAIL
37. Disc Filter System No. 3 Backwash Valve 4 FAIL
38. Disc Filter System No. 3 Backwash Valve 5 FAIL
39. Disc Filter System No. 3 Backwash Valve 6 FAIL
40. Disc Filter System No. 3 Backwash Valve 7 FAIL
41. Disc Filter System No. 3 Solids Waste Valve 1 FAIL
42. Disc Filter System No. 3 Solids Waste Valve 2 FAIL

43. Disc Filter System No. 3 Level alarm high
44. Disc Filter System No. 3 Emergency Stop Activated
45. Disc Filter System No. 3 High turbidity alarm
46. Disc Filter System No. 4 Filter Drive Unit (FDU) FAIL
47. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 FAIL
48. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 FAIL
49. Disc Filter System No. 4 Backwash Valve 1 FAIL
50. Disc Filter System No. 4 Backwash Valve 2 FAIL
51. Disc Filter System No. 4 Backwash Valve 3 FAIL
52. Disc Filter System No. 4 Backwash Valve 4 FAIL
53. Disc Filter System No. 4 Backwash Valve 5 FAIL
54. Disc Filter System No. 4 Backwash Valve 6 FAIL
55. Disc Filter System No. 4 Backwash Valve 7 FAIL
56. Disc Filter System No. 4 Solids Waste Valve 1 FAIL
57. Disc Filter System No. 4 Solids Waste Valve 2 FAIL
58. Disc Filter System No. 4 Level alarm high
59. Disc Filter System No. 4 Emergency Stop Activated
60. Disc Filter System No. 4 High turbidity alarm
61. Disc Filter System No. 5 Filter Drive Unit (FDU) FAIL
62. Disc Filter System No. 5 Backwash/Solids Waste Pump 1 FAIL
63. Disc Filter System No. 5 Backwash/Solids Waste Pump 2 FAIL
64. Disc Filter System No. 5 Backwash Valve 1 FAIL
65. Disc Filter System No. 5 Backwash Valve 2 FAIL
66. Disc Filter System No. 5 Backwash Valve 3 FAIL
67. Disc Filter System No. 5 Backwash Valve 4 FAIL
68. Disc Filter System No. 5 Backwash Valve 5 FAIL
69. Disc Filter System No. 5 Backwash Valve 6 FAIL
70. Disc Filter System No. 5 Backwash Valve 7 FAIL
71. Disc Filter System No. 5 Solids Waste Valve 1 FAIL
72. Disc Filter System No. 5 Solids Waste Valve 2 FAIL
73. Disc Filter System No. 5 Level alarm high
74. Disc Filter System No. 5 Emergency Stop Activated
75. Disc Filter System No. 5 High turbidity alarm
76. Disc Filter System No. 6 Filter Drive Unit (FDU) FAIL
77. Disc Filter System No. 6 Backwash/Solids Waste Pump 1 FAIL
78. Disc Filter System No. 6 Backwash/Solids Waste Pump 2 FAIL
79. Disc Filter System No. 6 Backwash Valve 1 FAIL
80. Disc Filter System No. 6 Backwash Valve 2 FAIL
81. Disc Filter System No. 6 Backwash Valve 3 FAIL
82. Disc Filter System No. 6 Backwash Valve 4 FAIL
83. Disc Filter System No. 6 Backwash Valve 5 FAIL
84. Disc Filter System No. 6 Backwash Valve 6 FAIL
85. Disc Filter System No. 6 Backwash Valve 7 FAIL
86. Disc Filter System No. 6 Solids Waste Valve 1 FAIL
87. Disc Filter System No. 6 Solids Waste Valve 2 FAIL
88. Disc Filter System No. 6 Level alarm high

89. Disc Filter System No. 6 Emergency Stop Activated
90. Disc Filter System No. 6 High turbidity alarm

END OF AWRF FILTER SECTION

1.6 DISC FILTER SYSTEM (OWRF)

A. Summary:
   1. The Ocotillo WRF will be updated with a Disc Filtration System upstream of the Chlorine Contact Basins (CCB's). Refer to Specification Section 11400, Disc Filtration System.
      a. Effluent from the secondary clarifiers upstream flows via gravity through a 42" pipe to the common influent channel. Flow is then distributed between the four filter units (three in operation, one standby) and the filter influent enters the filter basins by flowing over an influent weir and submerging the discs. Under normal operation, the discs are stationary.
      b. The cloth media filters are designed to continuously remove particulates from the flow steam. As the influent passes through the cloth on each side of the disc, solids are built up on the cloth surface, creating a mat. Other, heavier solids settle to the bottom of the filter basin. The filtrate is collected in the center tube and flows through to an effluent chamber and over an effluent weir, into the effluent channel. The filter effluent is then conveyed to the chlorine contact basin.
      c. As the amount of particulates on and within the pile cloth media increases, the static pressure required to pass water through the pile cloth media increases. This results in an increased water level within the filter basin and increased differential pressure (headloss) on the pile cloth media. Backwash mode cleans the pile cloth media by drawing from the filtered side of the pile cloth media. This reverse flow dislodges particulates embedded in the pile cloth media and restores it to a clean condition
      d. Upon reaching a specific number of backwash cycles performed, or an elapsed time, the solids waste mode will be automatically initiated. Solids on the floor of the filter basin are collected via a perforated manifold that is attached to the backwash/waste pump.
      e. Backwash and solids wastewater are transported back to the IPS.
      f. The filter manufacturer shall be responsible for implementing all the detailed control strategies for each filter in each vendor supplied LCP/PLC.
      g. Each LCP will be equipped with an OIT.

B. P&ID: See Sheets I-3.41 to I-3.53.

C. Components:
   1. Equipment

Associated Disc Filter Unit(s)	Item Description	Item Tag
DS1	Control Panel	VCP-539-100
DS1	Power Panel	VPP-539-100
DS1	Drive Unit	FDU-539-100
DS1	Drive Unit Disconnect Switch	DSC-539-100
DS1	Motorized Inlet Gate	EDR-539-101
DS1	Solids Waste Valve 1	MOV-539-111
DS1	Backwash Valve 1	MOV-539-121
DS1	Backwash Valve 2	MOV-539-122
DS1	Backwash Valve 3	MOV-539-123
DS1	Backwash Valve 4	MOV-539-124
DS1	Backwash Valve 5	MOV-539-125
DS1	Backwash Valve 6	MOV-539-126
DS1	Backwash Pump A	BWP-539-130
DS1	Backwash Pump A Disconnect Switch	DSC-539-130
DS1	Backwash Pump B	BWP-539-140
DS1	Backwash Pump B Disconnect Switch	DSC-539-140
DS1	Power Pullbox	PPB-539-100
DS1	Control Pullbox	CPB-539-100
DS1	Analog Pullbox	APB-539-100
DS2	Control Panel	VCP-539-200
DS2	Power Panel	VPP-539-200
DS2	Drive Unit	FDU-539-200

DS2	Drive Unit Disconnect Switch	DSC-539-200
DS2	Motorized Inlet Gate	EDR-539-201
DS2	Solids Waste Valve 1	MOV-539-211
DS2	Backwash Valve 1	MOV-539-221
DS2	Backwash Valve 2	MOV-539-222
DS2	Backwash Valve 3	MOV-539-223
DS2	Backwash Valve 4	MOV-539-224
DS2	Backwash Valve 5	MOV-539-225
DS2	Backwash Valve 6	MOV-539-226
DS2	Backwash Pump A	BWP-539-230
DS2	Backwash Pump A Disconnect Switch	DSC-539-230
DS2	Backwash Pump B	BWP-539-240
DS2	Backwash Pump B Disconnect Switch	DSC-539-240
DS2	Power Pullbox	PPB-539-200
DS2	Control Pullbox	CPB-539-200
DS2	Analog Pullbox	APB-539-200
DS3	Control Panel	VCP-539-300
DS3	Power Panel	VPP-539-300
DS3	Drive Unit	FDU-539-300
DS3	Drive Unit Disconnect Switch	DSC-539-300
DS3	Motorized Inlet Gate	EDR-539-301
DS3	Solids Waste Valve 1	MOV-539-311
DS3	Backwash Valve 1	MOV-539-321
DS3	Backwash Valve 2	MOV-539-322

DS3	Backwash Valve 3	MOV-539-323
DS3	Backwash Valve 4	MOV-539-324
DS3	Backwash Valve 5	MOV-539-325
DS3	Backwash Valve 6	MOV-539-326
DS3	Backwash Pump A	BWP-539-330
DS3	Backwash Pump A Disconnect Switch	DSC-539-330
DS3	Backwash Pump B	BWP-539-340
DS3	Backwash Pump B Disconnect Switch	DSC-539-340
DS3	Power Pullbox	PPB-539-300
DS3	Control Pullbox	CPB-539-300
DS3	Analog Pullbox	APB-539-300
DS4	Control Panel	VCP-539-400
DS4	Power Panel	VPP-539-400
DS4	Drive Unit	FDU-539-400
DS4	Drive Unit Disconnect Switch	DSC-539-400
DS4	Motorized Inlet Gate	EDR-539-401
DS4	Solids Waste Valve 1	MOV-539-411
DS4	Backwash Valve 1	MOV-539-421
DS4	Backwash Valve 2	MOV-539-422
DS4	Backwash Valve 3	MOV-539-423
DS4	Backwash Valve 4	MOV-539-424
DS4	Backwash Valve 5	MOV-539-425
DS4	Backwash Valve 6	MOV-539-426
DS4	Backwash Pump A	BWP-539-430

DS4	Backwash Pump A Disconnect Switch	DSC-539-430
DS4	Backwash Pump B	BWP-539-440
DS4	Backwash Pump B Disconnect Switch	DSC-539-440
DS4	Power Pullbox	PPB-539-400
DS4	Control Pullbox	CPB-539-400
DS4	Analog Pullbox	APB-539-400
NA	Monorail Hoist Disconnect Switch	DSC-539-300
NA	Monorail Hoist E-Stop	ES-539-300
DS1/DS2	Sump Pump Motor Control Panel No. 1	MCP-539-150
DS1/DS2	Sump Pump No. 1	PMP-539-151
DS1/DS2	Sump 1 Low Level Switch	LSL-539-153
DS1/DS2	Sump 1 High Level Switch	LSH-539-154
DS1/DS2	Sump 1 High High Level Switch	LSHH-539-155
DS3/DS4	Sump Pump Motor Control Panel No. 2	MCP-539-250
DS3/DS4	Sump Pump No. 2	PMP-539-251
DS3/DS4	Sump 2 Low Level Switch	LSL-539-253
DS3/DS4	Sump 2 High Level Switch	LSH-539-254
DS3/DS4	Sump 2 High High Level Switch	LSHH-539-255

2. Instruments:

Associated Disc Filter Unit(s)	Item Description	Item Tag

DS1	Pressure Transducer	LIT-539-103
DS1	High Level Float Switch	LSH-539-102
DS1	Effluent Chamber Turbidity Probe	AE-539-104
DS1	Vacuum Transmitter No. 1	VT-539-131
DS1	Vacuum Transmitter No. 2	VT-539-141
DS1	Vacuum Indicator No. 1	VI-539-132
DS1	Pressure Indicator No. 1	PI-539-133
DS1	Vacuum Indicator No. 2	VI-539-142
DS1	Pressure Indicator No. 2	PI-539-143
DS1	Effluent Chamber Turbidity Analyzer	AIT-539-104
DS2	Pressure Transducer	LIT-539-203
DS2	High Level Float Switch	LSH-539-202
DS2	Effluent Chamber Turbidity Probe	AE-539-204
DS2	Vacuum Transmitter No. 1	VT-539-231
DS2	Vacuum Transmitter No. 2	VT-539-241
DS2	Vacuum Indicator No. 1	VI-539-232
DS2	Pressure Indicator No. 1	PI-539-233
DS2	Vacuum Indicator No. 2	VI-539-242
DS2	Pressure Indicator No. 2	PI-539-243
DS2	Effluent Chamber Turbidity Analyzer	AIT-539-204
DS3	Pressure Transducer	LIT-539-303
DS3	High Level Float Switch	LSH-539-302
DS3	Effluent Chamber Turbidity Probe	AE-539-304
DS3	Vacuum Transmitter No. 1	VT-539-331

DS3	Vacuum Transmitter No. 2	VT-539-341
DS3	Vacuum Indicator No. 1	VI-539-332
DS3	Pressure Indicator No. 1	PI-539-333
DS3	Vacuum Indicator No. 2	VI-539-342
DS3	Pressure Indicator No. 2	PI-539-343
DS3	Effluent Chamber Turbidity Analyzer	AIT-539-304
DS4	Pressure Transducer	LIT-539-403
DS4	High Level Float Switch	LSH-539-402
DS4	Effluent Chamber Turbidity Probe	AE-539-404
DS4	Vacuum Transmitter No. 1	VT-539-431
DS4	Vacuum Transmitter No. 2	VT-539-441
DS4	Vacuum Indicator No. 1	VI-539-432
DS4	Pressure Indicator No. 1	PI-539-433
DS4	Vacuum Indicator No. 2	VI-539-442
DS4	Pressure Indicator No. 2	PI-539-443
DS4	Effluent Chamber Turbidity Analyzer	AIT-539-404

D. Hard-Wired Safety Interlocks:
   1. The Filter Drive will automatically stop on motor overload.
   2. The Backwash/Solids Waste Pump will automatically STOP on low-level alarm.
   3. The Backwash/Solids Waste Pump will automatically STOP on motor overload.
   4. The Backwash high water level set elevation will not go above 1184.95’.

E. Control Modes:
   1. Remote Auto (SCADA):
      a. Disc Filter Influent Gate:
         1) Place all disc filter influent gates in the REMOTE position at the respective gate LCP.
         2) The disc filter inlet gate will open by pressing the OPEN button from individual filter control page at DCS.

3) The disc filter influent gate will close by pressing the CLOSE button from individual filter control page at DCS.

b. Backwash/Solids Waste Cycle

1) Place all vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400, H-O-A switches in the AUTO position. Place the LEVEL or TIMED selector switch, at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400 in the proper position dependent on operations.
2) Place all backwash valves/solids waste valve(s) in the REMOTE position.
3) Place all backwash/solids wasting pump(s) in the REMOTE position.
4) Place the filter drive unit in the REMOTE position.
5) The disc filter system will start operation in normal filtration mode when set to ENABLE.
6) The backwash/solids waste pump(s) will start automatically when a backwash is initiated by either LEVEL or TIME, dependent on operations.
7) The backwash/solids waste valve(s) will operate automatically during backwash/solids wasting.
8) Backwash interval is set on the Individual Filter Control page from SCADA.
9) Backwash high water level for automatic backwash is set on the Individual Filter Control page from SCADA.
10) Backwash count to initiate sludge wasting is set on the Individual Filter Control page from SCADA.
11) Solids wasting interval (time) is set on the Individual Filter Control page from SCADA.
12) The disc filter system will stop operation when set to DISABLE.

2. Remote Hand

a. Disc Filter Influent Gate:

1) Place all disc filter influent gates in the REMOTE position at the respective gate LCP.
2) The disc filter inlet gate will open by pressing the OPEN button from individual filter control page at SCADA.
3) The disc filter influent gate will close by pressing the CLOSE button from individual filter control page at SCADA.

b. Backwash/Solids Waste Cycle:

1) Place all vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400, LOCAL-OFF-REMOTE switches in the REMOTE position.
2) Place all backwash/solids wasting pump(s) in the REMOTE position.
3) The Backwash/Solids Waste Pump(s) will start by pressing the START BACKWASH button from individual filter control page at SCADA.
4) The Backwash/Solids Waste Pump(s) will stop when the backwash/solids waste cycle is complete.

5) Place all backwash valves/solids waste valve(s) in the AUTO position.
6) The Backwash/Solids Waste Valves(s) will open automatically during a backwash/solids waste cycle.
7) The Backwash/Solids Waste Valve(s) will close automatically during a backwash/solids waste cycle.
8) Place the filter drive unit in the AUTO position.
9) The Filter Drive Motor will start by pressing the START BACKWASH button from individual filter control page at SCADA.
10) The Filter Drive Motor will stop when the backwash/solids waste cycle is complete.
11) Backwash interval is set on the Individual Filter Control page from SCADA.
12) Backwash high water level for automatic backwash is set on the Individual Filter Control page from SCADA.
13) Backwash count to initiate sludge wasting is set on the Individual Filter Control page from SCADA.
14) Solids wasting interval (time) is set on the Individual Filter Control page from SCADA.

3. Local Auto:
   a. Disc Filter Influent Gate:
      1) Place all disc filter influent gates in the LOCAL position at the respective gate LCP.
      2) The disc filter inlet gate will open by pressing the OPEN button from the gate LCP.
      3) The disc filter influent gate will close by pressing the CLOSE button from the gate LCP.
   b. Backwash/Solids Waste Cycle:
      1) Place all vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400, H-O-A switches in the AUTO position. Place the LEVEL or TIMED selector switch, at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400 in the proper position dependent on operations.
      2) Place all backwash valves/solids waste valve(s) in the LOCAL position.
      3) Place all backwash/solids wasting pump(s) in the LOCAL position.
      4) Place the filter drive unit in the LOCAL position.
      5) The disc filter system will start operation in normal filtration mode when the disc filter influent gate is open.
      6) The backwash/solids waste pump(s) will start automatically when a backwash is initiated by either LEVEL or TIME, dependent on operations.
      7) The backwash/solids waste valve(s) will operate automatically during backwash/solids wasting.
      8) Backwash interval is set locally at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.

9) Backwash high water level for automatic backwash is set locally at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
10) Backwash count to initiate sludge wasting is set locally at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
11) Solids wasting interval (time) is set locally at the vendor control panels, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
12) The disc filter system will stop operation when the disc filter influent gate is closed.

4. Local Hand
   a. Disc Filter Influent Gate:
      1) Place all disc filter influent gates in the LOCAL position.
      2) The disc filter influent gates will open by placing the panel L-O-R switch in the LOCAL position and pressing the OPEN pushbutton.
      3) The disc filter influent gates will close by placing the panel L-O-R switch in the LOCAL position and pressing the CLOSE pushbutton.
   b. Backwash/Solids Waste Pump(s):
      1) The backwash/solids waste pump(s) is controlled locally at the vendor control panel, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
      2) The Backwash/Solids Waste Pump(s) START/STOP button is located at the vendor control panel, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
      3) The Backwash/Solids Waste Pump(s) will start by placing the panel H-O-A switch in the HAND position and pressing the START pushbutton.
      4) The Backwash/Solids Waste Pump(s) will stop by placing the panel H-O-A switch in the HAND position and pressing the STOP pushbutton.
   c. Backwash/Solids Waste Valve(s):
      1) The backwash/solids waste valve(s) is controlled locally at the vendor control panel, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
      2) The Backwash/Solids Waste Valve(s) OPEN/CLOSE button is located at the vendor control panel, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.
      3) The Backwash/Solids Waste valve(s) actuator will open and close the valve using the OPEN/STOP/CLOSE controls at the valve actuator when the LOCAL-OFF-REMOTE switch is set to LOCAL.
   d. Filter Drive Unit
      1) The Filter Drive Motor is controlled locally at the vendor control panel, VCP-539-100, VCP-539-200, VCP-539-300, and VCP-539-400.

2) The Filter Drive Motor is started by placing the panel H-O-A switch in the HAND position and pressing the START pushbutton.
3) The Filter Drive Motor is stopped by placing the panel H-O-A switch in the HAND position and pressing the STOP pushbutton.

F. Monitor: The following data will be monitored by SCADA
1. Disc Filter System No. 1 High Level Status
2. Disc Filter System No. 1 Filter Drive Unit (FDU) in AUTO/HAND status
3. Disc Filter System No. 1 Filter Drive Unit (FDU) in OFF status
4. Disc Filter System No. 1 Filter Drive Unit (FDU) RUN status
5. Disc Filter System No. 1 Backwash Duration (time) status
6. Disc Filter System No. 1 Solids Wasting Duration (time) status
7. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
8. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 in OFF status
9. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 RUN status
10. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 in OFF status
11. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 RUN status
12. Disc Filter System No. 1 Backwash Valve 1 Open Status
13. Disc Filter System No. 1 Backwash Valve 1 Closed Status
14. Disc Filter System No. 1 Backwash Valve 2 Open Status
15. Disc Filter System No. 1 Backwash Valve 2 Closed Status
16. Disc Filter System No. 1 Backwash Valve 3 Open Status
17. Disc Filter System No. 1 Backwash Valve 3 Closed Status
18. Disc Filter System No. 1 Backwash Valve 4 Open Status
19. Disc Filter System No. 1 Backwash Valve 4 Closed Status
20. Disc Filter System No. 1 Backwash Valve 5 Open Status
21. Disc Filter System No. 1 Backwash Valve 5 Closed Status
22. Disc Filter System No. 1 Backwash Valve 6 Open Status
23. Disc Filter System No. 1 Backwash Valve 6 Closed Status
24. Disc Filter System No. 1 Solids Waste Valve 1 Open Status
25. Disc Filter System No. 1 Solids Waste Valve 1 Closed Status
26. Disc Filter System No. 2 Disc Filter Influent Gate Open Status
27. Disc Filter System No. 2 High Level Status
28. Disc Filter System No. 2 Filter Drive Unit (FDU) in AUTO/HAND status
29. Disc Filter System No. 2 Filter Drive Unit (FDU) in OFF status
30. Disc Filter System No. 2 Filter Drive Unit (FDU) RUN status
31. Disc Filter System No. 2 Backwash Duration (time) status
32. Disc Filter System No. 2 Solids Wasting Duration (time) status
33. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
34. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 in OFF status
35. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 RUN status
36. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 in OFF status
37. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 RUN status
38. Disc Filter System No. 2 Backwash Valve 1 Open Status

39. Disc Filter System No. 2 Backwash Valve 1 Closed Status
40. Disc Filter System No. 2 Backwash Valve 2 Open Status
41. Disc Filter System No. 2 Backwash Valve 2 Closed Status
42. Disc Filter System No. 2 Backwash Valve 3 Open Status
43. Disc Filter System No. 2 Backwash Valve 3 Closed Status
44. Disc Filter System No. 2 Backwash Valve 4 Open Status
45. Disc Filter System No. 2 Backwash Valve 4 Closed Status
46. Disc Filter System No. 2 Backwash Valve 5 Open Status
47. Disc Filter System No. 2 Backwash Valve 5 Closed Status
48. Disc Filter System No. 2 Backwash Valve 6 Open Status
49. Disc Filter System No. 2 Backwash Valve 6 Closed Status
50. Disc Filter System No. 2 Solids Waste Valve 1 Open Status
51. Disc Filter System No. 2 Solids Waste Valve 1 Closed Status
52. Disc Filter System No. 3 Disc Filter Influent Gate Open Status
53. Disc Filter System No. 3 High Level Status
54. Disc Filter System No. 3 Filter Drive Unit (FDU) in AUTO/HAND status
55. Disc Filter System No. 3 Filter Drive Unit (FDU) in OFF status
56. Disc Filter System No. 3 Filter Drive Unit (FDU) RUN status
57. Disc Filter System No. 3 Backwash Duration (time) status
58. Disc Filter System No. 3 Solids Wasting Duration (time) status
59. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
60. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 in OFF status
61. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 RUN status
62. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 in OFF status
63. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 RUN status
64. Disc Filter System No. 3 Backwash Valve 1 Open Status
65. Disc Filter System No. 3 Backwash Valve 1 Closed Status
66. Disc Filter System No. 3 Backwash Valve 2 Open Status
67. Disc Filter System No. 3 Backwash Valve 2 Closed Status
68. Disc Filter System No. 3 Backwash Valve 3 Open Status
69. Disc Filter System No. 3 Backwash Valve 3 Closed Status
70. Disc Filter System No. 3 Backwash Valve 4 Open Status
71. Disc Filter System No. 3 Backwash Valve 4 Closed Status
72. Disc Filter System No. 3 Backwash Valve 5 Open Status
73. Disc Filter System No. 3 Backwash Valve 5 Closed Status
74. Disc Filter System No. 3 Backwash Valve 6 Open Status
75. Disc Filter System No. 3 Backwash Valve 6 Closed Status
76. Disc Filter System No. 3 Solids Waste Valve 1 Open Status
77. Disc Filter System No. 3 Solids Waste Valve 1 Closed Status
78. Disc Filter System No. 4 Disc Filter Influent Gate Open Status
79. Disc Filter System No. 4 High Level Status
80. Disc Filter System No. 4 Filter Drive Unit (FDU) in AUTO/HAND status
81. Disc Filter System No. 4 Filter Drive Unit (FDU) in OFF status
82. Disc Filter System No. 4 Filter Drive Unit (FDU) RUN status
83. Disc Filter System No. 4 Backwash Duration (time) status

84. Disc Filter System No. 4 Solids Wasting Duration (time) status
85. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 in AUTO/HAND status.
86. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 in OFF status
87. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 RUN status
88. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 in OFF status
89. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 RUN status
90. Disc Filter System No. 4 Backwash Valve 1 Open Status
91. Disc Filter System No. 4 Backwash Valve 1 Closed Status
92. Disc Filter System No. 4 Backwash Valve 2 Open Status
93. Disc Filter System No. 4 Backwash Valve 2 Closed Status
94. Disc Filter System No. 4 Backwash Valve 3 Open Status
95. Disc Filter System No. 4 Backwash Valve 3 Closed Status
96. Disc Filter System No. 4 Backwash Valve 4 Open Status
97. Disc Filter System No. 4 Backwash Valve 4 Closed Status
98. Disc Filter System No. 4 Backwash Valve 5 Open Status
99. Disc Filter System No. 4 Backwash Valve 5 Closed Status
100. Disc Filter System No. 4 Backwash Valve 6 Open Status
101. Disc Filter System No. 4 Backwash Valve 6 Closed Status
102. Disc Filter System No. 4 Solids Waste Valve 1 Open Status
103. Disc Filter System No. 4 Solids Waste Valve 1 Closed Status

G. Alarms: The following alarms and indications are available in all control modes:
1. Disc Filter System No. 1 Filter Drive Unit (FDU) FAIL
2. Disc Filter System No. 1 Backwash/Solids Waste Pump 1 FAIL
3. Disc Filter System No. 1 Backwash/Solids Waste Pump 2 FAIL
4. Disc Filter System No. 1 Backwash Valve 1 FAIL
5. Disc Filter System No. 1 Backwash Valve 2 FAIL
6. Disc Filter System No. 1 Backwash Valve 3 FAIL
7. Disc Filter System No. 1 Backwash Valve 4 FAIL
8. Disc Filter System No. 1 Backwash Valve 5 FAIL
9. Disc Filter System No. 1 Backwash Valve 6 FAIL
10. Disc Filter System No. 1 Solids Waste Valve 1 FAIL
11. Disc Filter System No. 1 Level alarm high
12. Disc Filter System No. 1 Emergency Stop Activated
13. Disc Filter System No. 1 High turbidity alarm
14. Disc Filter System No. 2 Filter Drive Unit (FDU) FAIL
15. Disc Filter System No. 2 Backwash/Solids Waste Pump 1 FAIL
16. Disc Filter System No. 2 Backwash/Solids Waste Pump 2 FAIL
17. Disc Filter System No. 2 Backwash Valve 1 FAIL
18. Disc Filter System No. 2 Backwash Valve 2 FAIL
19. Disc Filter System No. 2 Backwash Valve 3 FAIL
20. Disc Filter System No. 2 Backwash Valve 4 FAIL
21. Disc Filter System No. 2 Backwash Valve 5 FAIL
22. Disc Filter System No. 2 Backwash Valve 6 FAIL
23. Disc Filter System No. 2 Solids Waste Valve 1 FAIL

24. Disc Filter System No. 2 Level alarm high
25. Disc Filter System No. 2 Emergency Stop Activated
26. Disc Filter System No. 2 High turbidity alarm
27. Disc Filter System No. 3 Filter Drive Unit (FDU) FAIL
28. Disc Filter System No. 3 Backwash/Solids Waste Pump 1 FAIL
29. Disc Filter System No. 3 Backwash/Solids Waste Pump 2 FAIL
30. Disc Filter System No. 3 Backwash Valve 1 FAIL
31. Disc Filter System No. 3 Backwash Valve 2 FAIL
32. Disc Filter System No. 3 Backwash Valve 3 FAIL
33. Disc Filter System No. 3 Backwash Valve 4 FAIL
34. Disc Filter System No. 3 Backwash Valve 5 FAIL
35. Disc Filter System No. 3 Backwash Valve 6 FAIL
36. Disc Filter System No. 3 Solids Waste Valve 1 FAIL
37. Disc Filter System No. 3 Level alarm high
38. Disc Filter System No. 3 Emergency Stop Activated
39. Disc Filter System No. 3 High turbidity alarm
40. Disc Filter System No. 4 Filter Drive Unit (FDU) FAIL
41. Disc Filter System No. 4 Backwash/Solids Waste Pump 1 FAIL
42. Disc Filter System No. 4 Backwash/Solids Waste Pump 2 FAIL
43. Disc Filter System No. 4 Backwash Valve 1 FAIL
44. Disc Filter System No. 4 Backwash Valve 2 FAIL
45. Disc Filter System No. 4 Backwash Valve 3 FAIL
46. Disc Filter System No. 4 Backwash Valve 4 FAIL
47. Disc Filter System No. 4 Backwash Valve 5 FAIL
48. Disc Filter System No. 4 Backwash Valve 6 FAIL
49. Disc Filter System No. 4 Solids Waste Valve 1 FAIL
50. Disc Filter System No. 4 Level alarm high
51. Disc Filter System No. 4 Emergency Stop Activated
52. Disc Filter System No. 4 High turbidity alarm

PART 2 -

PART 2 -

PART 2 -

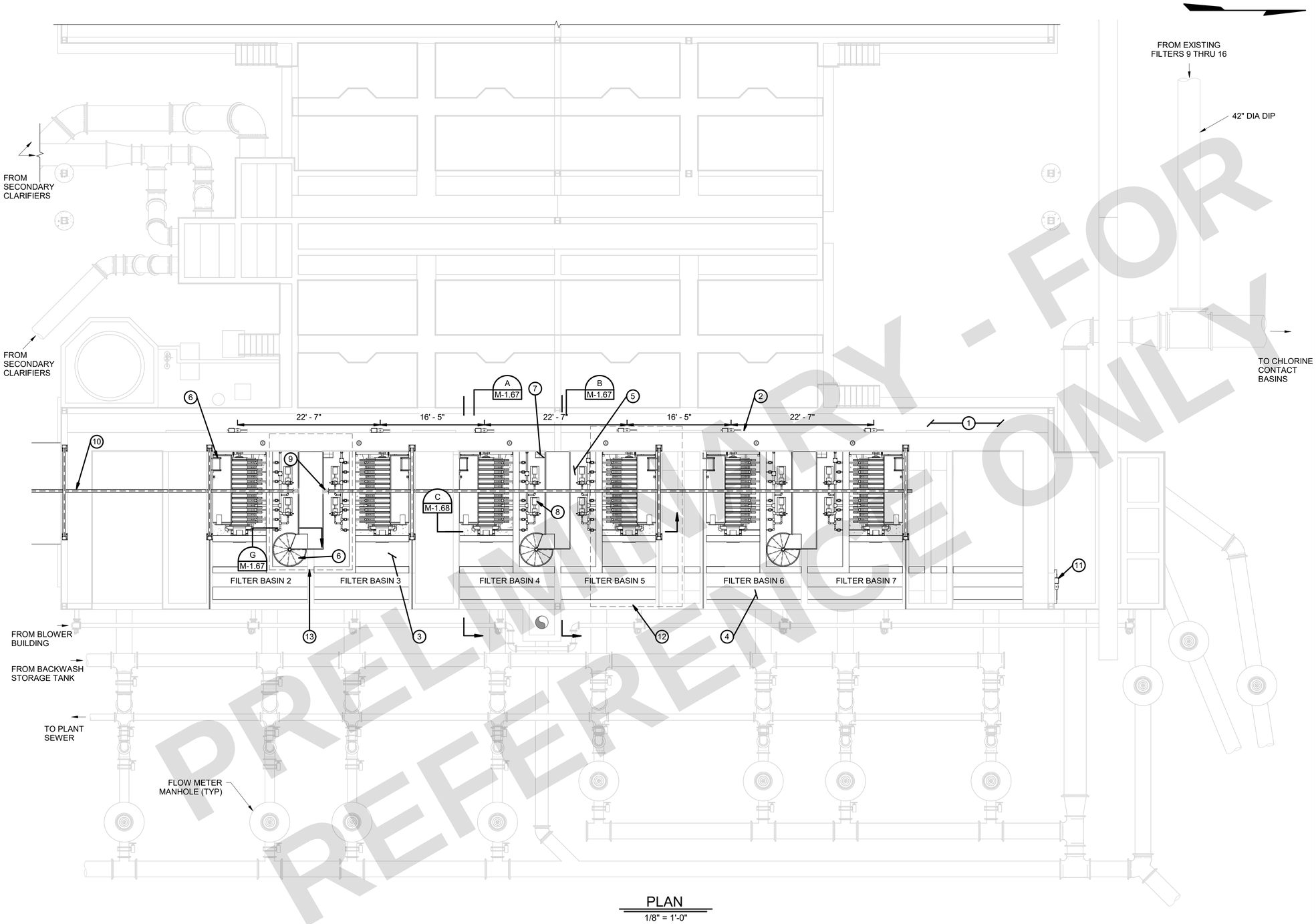
PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

ATTACHMENT TWO

GMP 1 – Figures (Preliminary – Not for Construction)



PLAN
1/8" = 1'-0"

KEYED NOTES

1. INFLUENT CHANNEL
2. 2'x4' INFLUENT SLIDE GATE (TYP)
3. EFFLUENT CHAMBER (TYP)
4. COMMON FILTER EFFLUENT CHANNEL
5. BACKWASH/SOLIDS PUMP GALLERY (TYP)
6. PUMP GALLERY ACCESS SPIRAL STAIRCASE
7. PUMP GALLERY SUMP (TYP)
8. BACKSWASH/SOLIDS WASTE PUMP (TYP)
9. DAVIT CRANE SOCKET (TYP) SEE DETAIL 408, SHEET M-7.04
10. 1 TON MONORAIL HOIST ASSEMBLY, SEE STRUCTURAL SHEETS FOR DETAILS
11. 4'x5' MOTOR ACTUATED FILTER EFFLUENT SLIDE GATE
12. SEE SHEET M-1.65 FOR DISC FILTER DETAILS
13. SEE SHEET M-1.66 FOR PUMP GALLERY DETAILS

NOTES

1. PORTIONS OF UPPER WALKWAY AND HANDRAILING NOT SHOWN FOR CLARITY.
2. FILTER CANOPY NOT SHOWN FOR CLARITY.

FIGURE 1

PRELIMINARY - FOR REFERENCE ONLY

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AWRF - FILTERS OVERALL PLAN

CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

Design: SZ	Drawn: JW	Checked: SR
Date: 07/2020	Wilson Project No. 19038	

Revision	Date	Description	By

VERIFY SCALES
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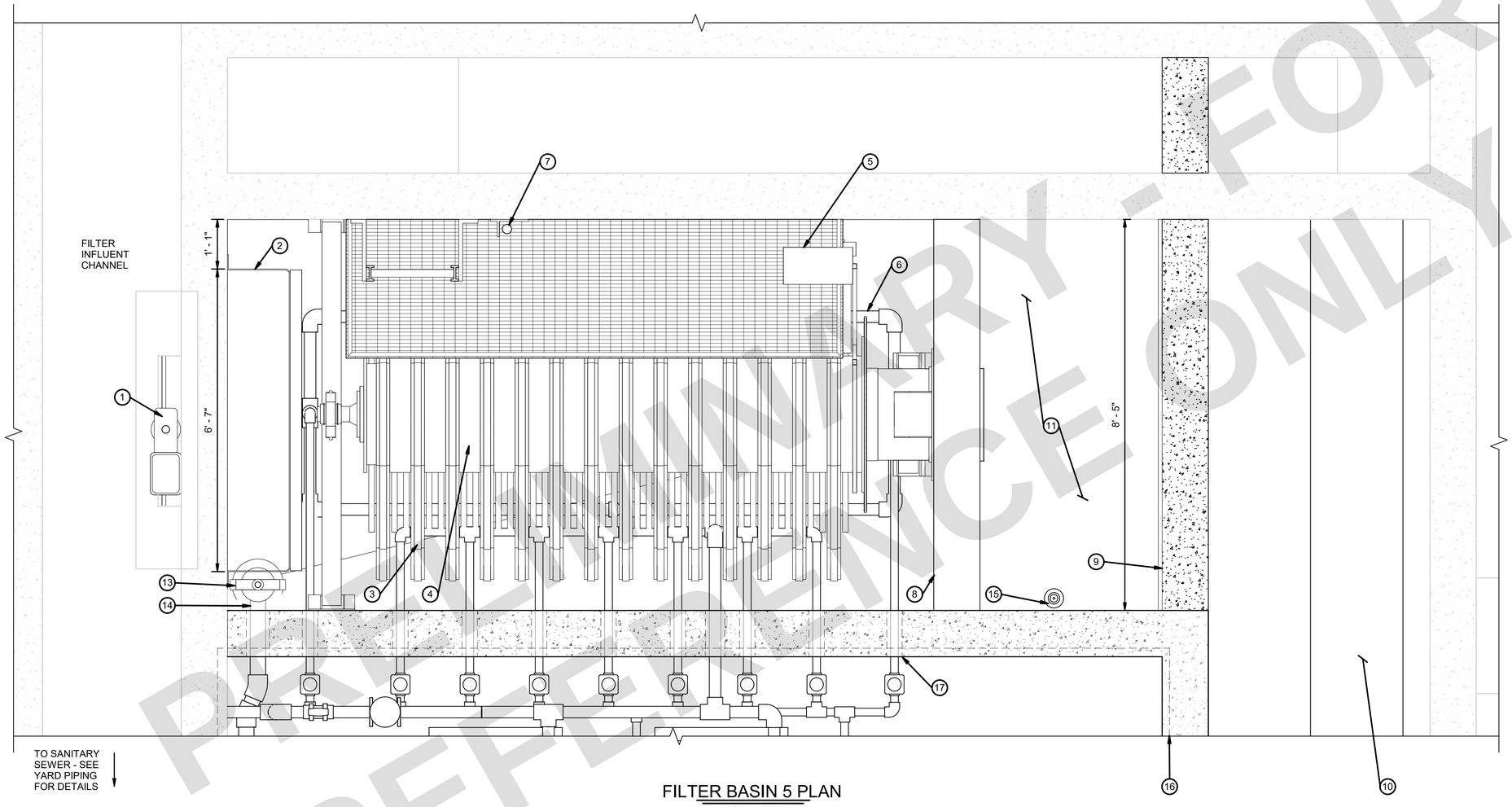
Sheet No. M-1.64



FILTER BASIN 5 PLAN

3/4" = 1'-0"

KEYED NOTES

1. 2'x4' MOTOR ACTUATED FILTER INFLUENT SLIDE GATE
2. FILTER INFLUENT WEIR
3. CLOTH MEDIA FILTER DISC (TYP)
4. FILTER EFFLUENT CENTERTUBE
5. FILTER DRIVE ASSEMBLY
6. 3" DIA PVC SOLIDS COLLECTION MANIFOLD
7. LEVEL SENSING PRESSURE TRANSDUCER AND FLOAT SWITCH
8. EFFLUENT WALL AND OVERFLOW WEIR
9. EFFLUENT WEIR
10. COMMON EFFLUENT CHANNEL
11. FILTER EFFLUENT CHAMBER
12. FILTER BACKWASH SHOE ASSEMBLY
13. 4" DIA MUD VALVE, SEE DETAIL 401, SHEET M-7.04
14. 4" DIA PVC DRAIN TO SUMP
15. TURBIDITY METER
16. SEE SHEET M-1.66 FOR DETAILS
17. PIPE PENECTATION (TYP), SEE DETAIL 103, SHEET M-7.01

PRELIMINARY - FOR REFERENCE ONLY

FIGURE 2

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AWRF - FILTER BASIN 5 PLAN

CITY PROJECT NO. WW1901.201
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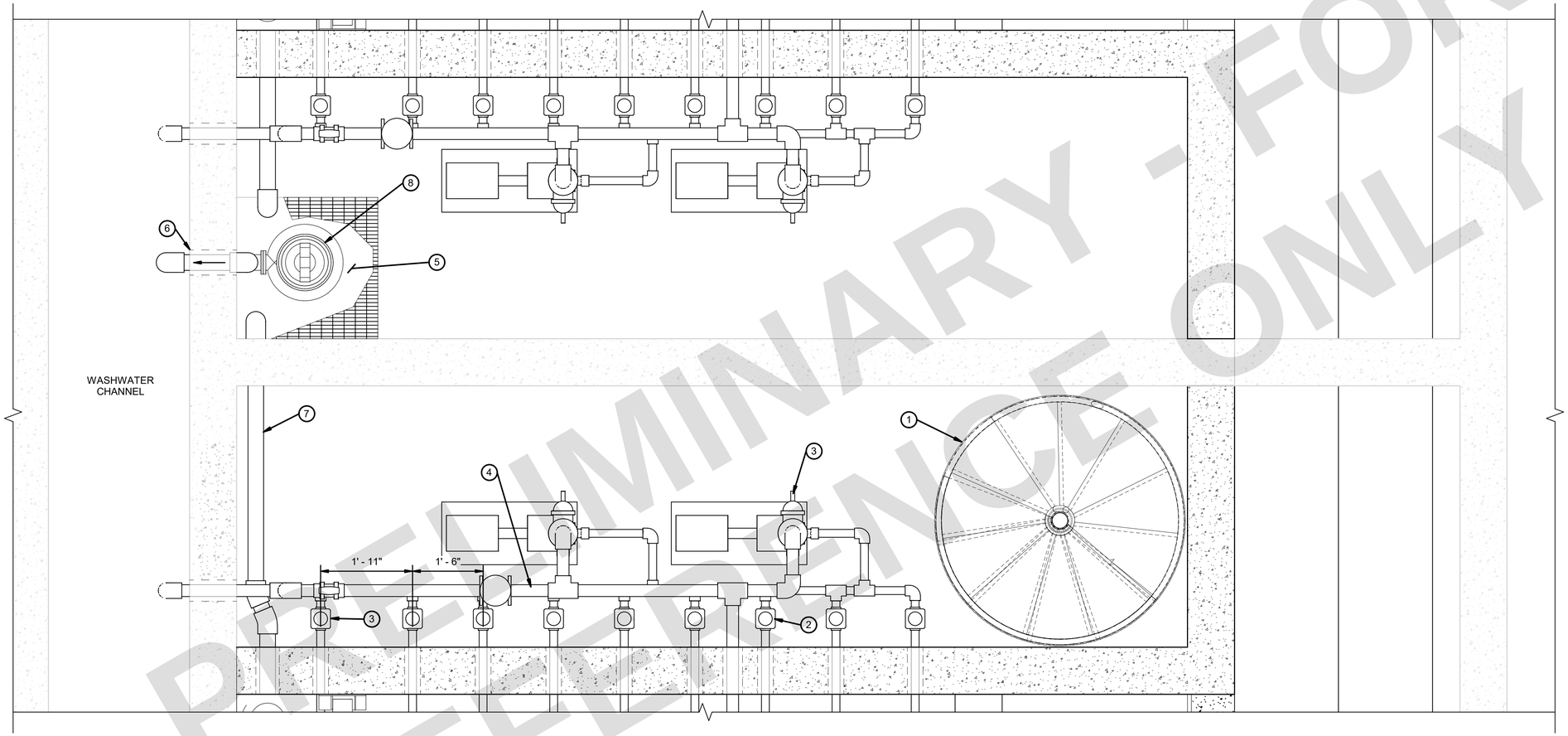

FILTER DRY PIT 1

3/4" = 1'-0"

ELEVATION = 1222

NOTES:

1. WALKWAY NOT SHOWN FOR CLARITY.

FIGURE 3

KEYED NOTES

1. BACKWASH/SOLIDS WASTE PUMP (TYP)
2. 3" DIA MOTOR ACTUATED BACKWASH BALL VALVE (TYP)
3. 3" DIA MOTOR ACTUATED SOLIDS WASTE BALL VALVE (TYP)
4. 3" DIA PVC PIPING (TYP)
5. PUMP GALLERY SUMP
6. PIPE PENECTRATION, SEE DETAIL 103, SHEET M-7.01 (TYP)
7. 4" PVC PIPING FROM FILTER CHAMBER MUD VALVE (TYP)
8. SUBMERSIBLE SUMP PUMP (TYP)
8. PUMP GALLERY ACCESS SPIRAL STAIRCASE, SEE STRUCTURAL SHEETS FOR DETAILS

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AWRF - FILTER PUMP GALLERY

CITY PROJECT NO. WW1901201
WILSON PROJECT NO. 19038

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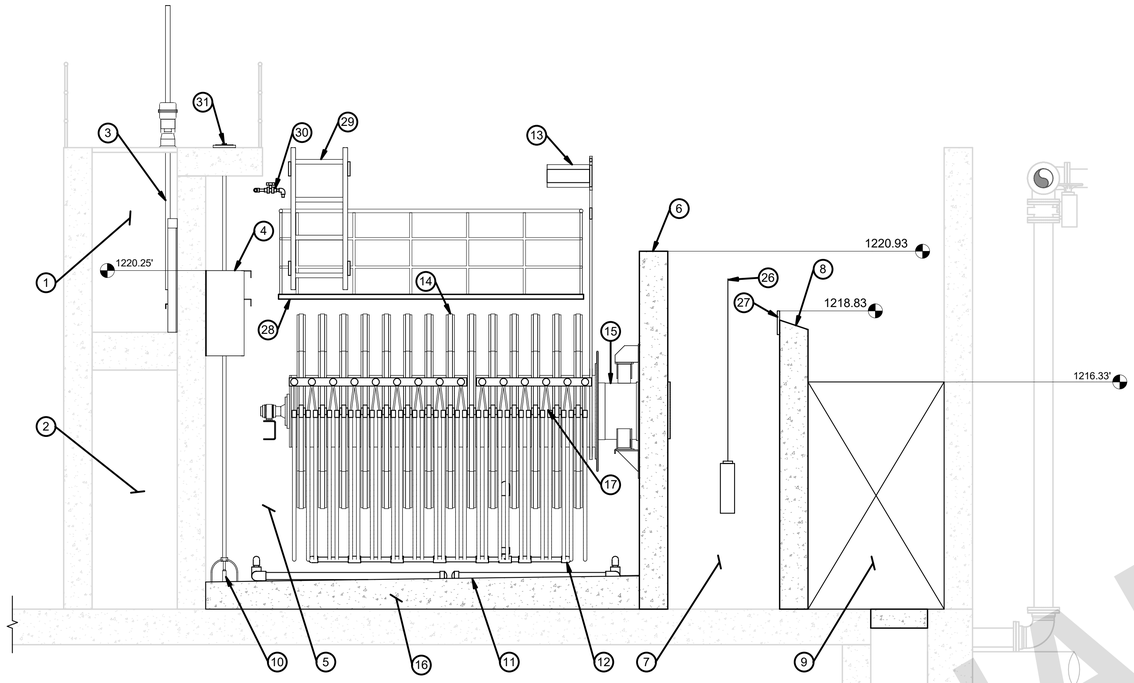
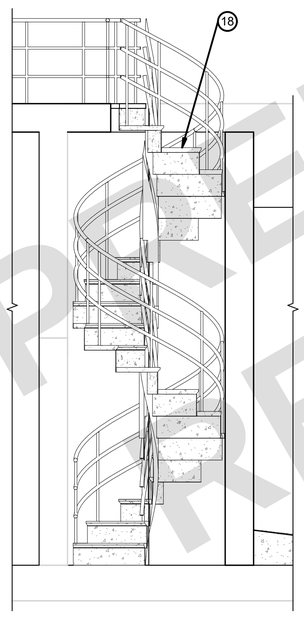
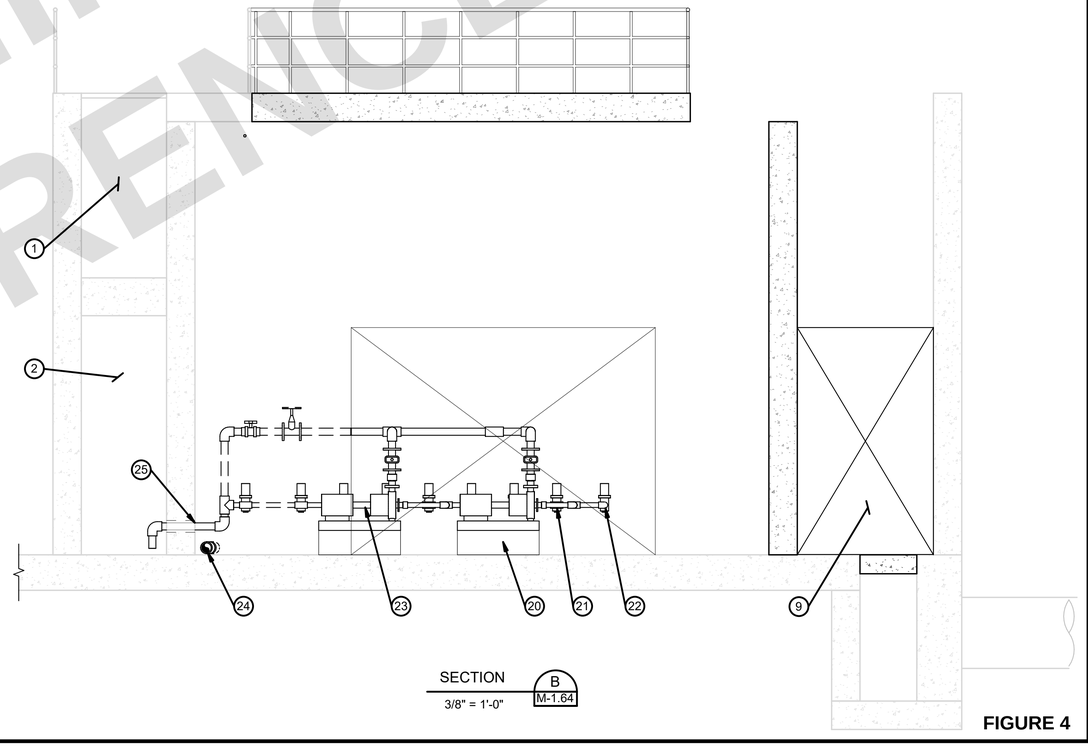


SECTION A
3/8" = 1'-0"
M-1.64



SECTION G
3/8" = 1'-0"
M-1.64



SECTION B
3/8" = 1'-0"
M-1.64

FIGURE 4

PRELIMINARY - FOR REFERENCE ONLY

KEYED NOTES

1. FILTER INFLUENT CHANNEL
2. WASHWATER CHANNEL
3. 2'x4' MOTOR ACTUATED FILTER INFLUENT SLIDE GATE
4. FILTER INFLUENT WEIR BOX
5. FILTER BASIN
6. FILTER EFFLUENT OVERFLOW WEIR WALL
7. FILTER EFFLUENT CHAMBER
8. FILTER EFFLUENT WEIR
9. COMMON FILTER EFFLUENT CHANNEL
10. FILTER BASIN MUD VALVE, SEE DETAIL 401, SHEET M-7.04
11. 3" DIA PVC SOLIDS COLLECTION MANIFOLD
12. 3" DIA PVC BACKWASH MANIFOLD
13. DRIVE ASSEMBLY
14. CLOTH MEDIA DISC FILTER (TYP)
15. FILTER EFFLUENT CENTERTUBE
16. FILTER BASIN GROUT, SEE STRUCTURAL SHEETS FOR DETAILS
17. BACKWASH SHOE (TYP)
18. PUMP GALLERY ACCESS STAIRS
19. FILTER BACKWASH/SOLIDS WASTE PUMP (TYP)
20. CONCRETE PUMP PAD (TYP), SEE STRUCTURAL SHEETS FOR DETAILS
21. 3" DIA MOTOR ACTUATED BACKWASH BALL VALVE (TYP)
22. 3" DIA MOTOR ACTUATED SOLIDS WASTE BALL VALVE (TYP)
23. 3" DIA PVC BACKWASH WATER/SOLIDS WASTE MANIFOLD
24. 4" DIA PVC FROM FILTER BASIN MUD VALVE DRAIN TO SUMP
25. PIPE PENETRATION (TYP), SEE DETAIL 103, SHEET M-7.01
26. TURBIDITY METER
27. EFFLUENT WEIR PLATE, SEE DETAIL 407, SHEET M-7.04
28. FILTER PLATFORM
29. FILTER ACCESS LADDER SEE DETAIL 406, SHEET M-7.04
30. 1" DIA CPVC SODIUM HYPOCHLORITE DOSING POINT
31. MUD VALVE OPERATING NUT FLOOR BOX SEE DETAIL 401, SHEET M-7.04

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AWRF - FILTERS SECTION 1

CITY PROJECT NO. WW1901201
WILSON PROJECT NO. 19038

Design: SZ	Drawn: AJC	Checked: SR
Date: 07/2020	Wilson Project No. 19038	

Revision	Date	Description	By

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Sheet No. M-1.67

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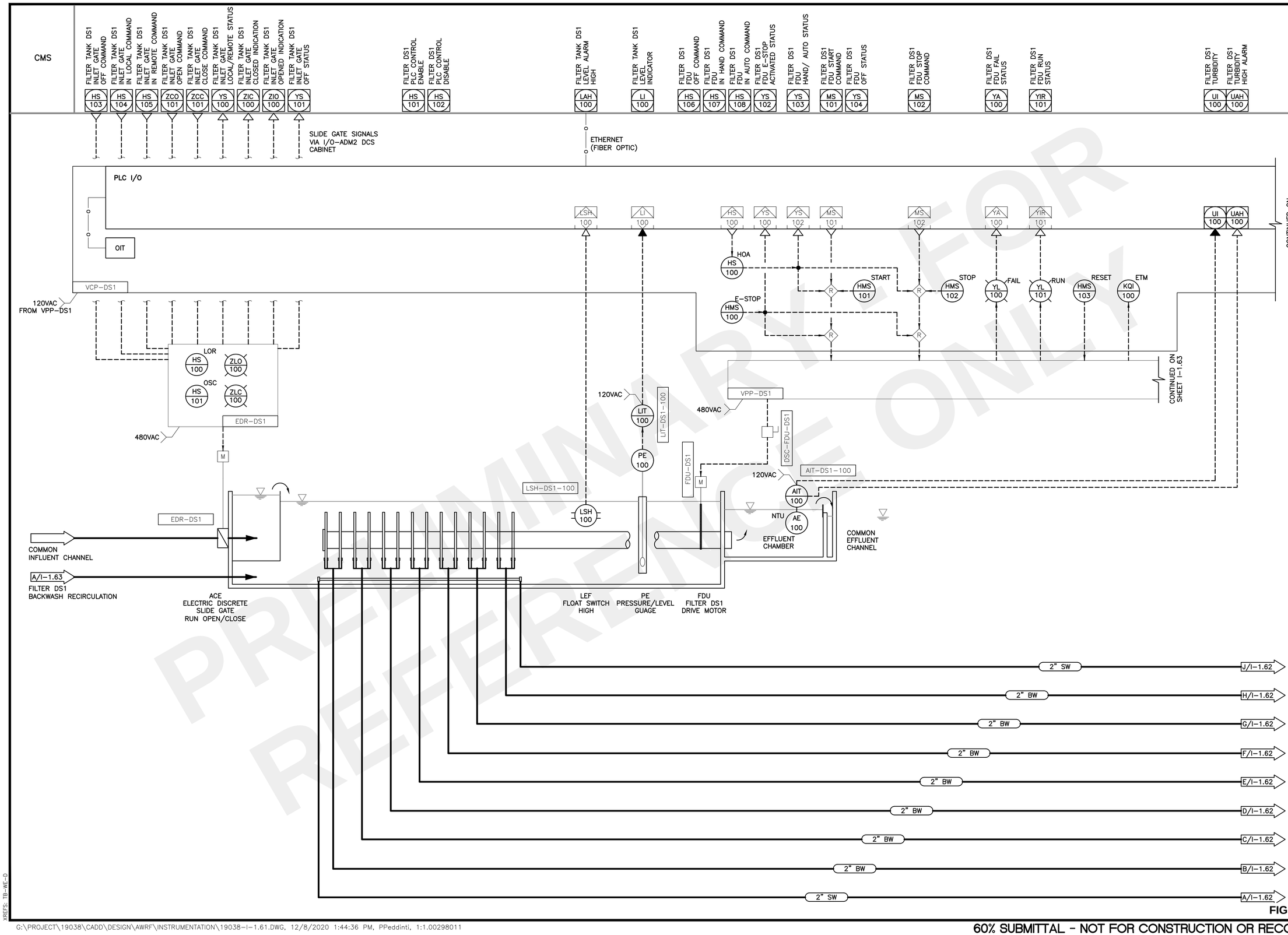

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FIGURE 5

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WILSON ENGINEERS

CITY OF CHANDLER
WATER RECLAMATION FACILITY IMPROVEMENTS
AWRF – FILTER DS1 P&ID
SHEET 1 OF 3

CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

Design: PKP	Drawn: CRG	Checked: MAC
Date: 11/2020	Wilson Project No.: 19038	

Revision	Date	Description	By

VERIFY SCALES
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Sheet No. **I–1.61**

XREFS: TB-WE-D

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CMS

FILTER TANK DS1 SOLIDS WASTE VALVE 1 OFF COMMAND — HS 111
FILTER TANK DS1 SOLIDS WASTE VALVE 1 IN LOCAL COMMAND — HS 112
FILTER TANK DS1 SOLIDS WASTE VALVE 1 IN REMOTE COMMAND — HS 113
FILTER TANK DS1 SOLIDS WASTE VALVE 1 LOCAL/REMOTE STATE — YS 110
FILTER TANK DS1 SOLIDS WASTE VALVE 1 CLOSED INDICATION — ZIC 110
FILTER TANK DS1 SOLIDS WASTE VALVE 1 OPENED INDICATION — ZIO 110
FILTER TANK DS1 SOLIDS WASTE VALVE 1 OFF STATUS — YS 111

TYPICAL FOR 2 SOLID WASTE VALVES

FILTER TANK DS1 BACKWASH VALVE 1 OFF COMMAND — HS 121
FILTER TANK DS1 BACKWASH VALVE 1 IN LOCAL COMMAND — HS 122
FILTER TANK DS1 BACKWASH VALVE 1 IN REMOTE COMMAND — HS 123
FILTER TANK DS1 BACKWASH VALVE 1 LOCAL/REMOTE STATE — YS 120
FILTER TANK DS1 BACKWASH VALVE 1 CLOSED INDICATION — ZIC 120
FILTER TANK DS1 BACKWASH VALVE 1 OPENED INDICATION — ZIO 120
FILTER TANK DS1 BACKWASH VALVE 1 OFF STATUS — YS 121

TYPICAL FOR 7 BACKWASH VALVES

CONTINUED FROM SHEET I-1.61

PLC I/O

ZCO 111, ZCC 111, HS 110, ZIC 110, ZIO 110
ZCO 121, ZCC 121, HS 120, ZIC 120, ZIO 120
ZCO 131, ZCC 131, HS 130, ZIC 130, ZIO 130
ZCO 141, ZCC 141, HS 140, ZIC 140, ZIO 140
ZCO 151, ZCC 151, HS 150, ZIC 150, ZIO 150
ZCO 161, ZCC 161, HS 160, ZIC 160, ZIO 160
ZCO 171, ZCC 171, HS 170, ZIC 170, ZIO 170
ZCO 181, ZCC 181, HS 180, ZIC 180, ZIO 180
ZCO 191, ZCC 191, HS 190, ZIC 190, ZIO 190

CONTINUED ON SHEET I-1.63

VCP-DS1

J/I-1.61
H/I-1.61
G/I-1.61
F/I-1.61
E/I-1.61
D/I-1.61
C/I-1.61
B/I-1.61
A/I-1.61

120VAC FROM VPP-DS1 TYPICAL (9) — M — MOV-DS1-SW2 — SOLIDS WASTE VALVE NO. 2 — 2" SW
120VAC — M — MOV-DS1-BW7 — BACKWASH VALVE NO. 7 — 2" SW
120VAC — M — MOV-DS1-BW6 — BACKWASH VALVE NO. 6 — 2" SW
120VAC — M — MOV-DS1-BW5 — BACKWASH VALVE NO. 5 — 2" SW
120VAC — M — MOV-DS1-BW4 — BACKWASH VALVE NO. 4 — 2" SW
120VAC — M — MOV-DS1-BW3 — BACKWASH VALVE NO. 3 — 2" BW
120VAC — M — MOV-DS1-BW2 — BACKWASH VALVE NO. 2 — 2" BW
120VAC — M — MOV-DS1-BW1 — BACKWASH VALVE NO. 1 — 2" BW
120VAC — M — MOV-DS1-SW1 — SOLIDS WASTE VALVE NO. 1 — 2" BW

3" BW — A/I-1.63
3" BW — B/I-1.63

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FIGURE 6

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AWRF – FILTER DS1 BACKWASH VALVES P&ID SHEET 2 OF 3

CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

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Sheet No. I-1.62

XREFS: TB-WE-0

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CMS

FILTER TANK DS1 PRESSURE INDICATOR — PI 102
FILTER TANK DS1 PRESSURE INDICATOR — PI 101
FILTER DS1 BACKWASH PUMP B OFF COMMAND — HS 134
FILTER DS1 BACKWASH PUMP B IN HAND COMMAND — HS 135
FILTER DS1 BACKWASH PUMP B IN AUTO COMMAND — HS 136
BACKWASH PUMP B E-STOP ACTIVATED STATUS — YS 114
FILTER DS1 BACKWASH PUMP B HAND/ AUTO STATUS — YS 115
FILTER DS1 BACKWASH PUMP B START COMMAND — MS 105
FILTER DS1 BACKWASH PUMP B OFF STATUS — YS 116
FILTER DS1 BACKWASH PUMP B STOP COMMAND — MS 106
FILTER DS1 BACKWASH PUMP B FAIL STATUS — YA 102
FILTER DS1 BACKWASH PUMP B RUN STATUS — YIR 103
FILTER DS1 BACKWASH PUMP A OFF COMMAND — HS 137
FILTER DS1 BACKWASH PUMP A IN HAND COMMAND — HS 138
FILTER DS1 BACKWASH PUMP A IN AUTO COMMAND — HS 139
BACKWASH PUMP A E-STOP ACTIVATED STATUS — YS 117
FILTER DS1 BACKWASH PUMP A HAND/ AUTO STATUS — YS 118
FILTER DS1 BACKWASH PUMP A START COMMAND — MS 109
FILTER DS1 BACKWASH PUMP A OFF STATUS — YS 118
FILTER DS1 BACKWASH PUMP A STOP COMMAND — MS 110
FILTER DS1 BACKWASH PUMP A FAIL STATUS — YA 104
FILTER DS1 BACKWASH PUMP A RUN STATUS — YIR 105

PLC I/O

CONTINUED FROM SHEET I-1.62

VCP-DS1

HOA — HS 103
E-STOP — HMS 104
START — HMS 105
STOP — HMS 106
FAIL — YL 102
RUN — YL 103
RESET — HMS 107
ETM — KQI 101

HOA — HS 104
E-STOP — HMS 108
START — HMS 109
STOP — HMS 110
FAIL — YL 104
RUN — YL 105
RESET — HMS 111
ETM — KQI 102

CONTINUED FROM SHEET I-1.61

VPP-DS1

DSC-BWP-DS1B

DSC-BWP-DS1A

120V — PIT 101 — VT-DS1-101 — VT 101

VI-DS1-132 — VI 132

PI 133 — PI-DS1-133

A/I-1.62 — 3" BW

VACUUM TRANSMITTER

VACUUM INDICATOR

M

BWP-DS1-A

PRESSURE INDICATOR

120V — PIT 102 — VT-DS1-102 — VT 102

VI-DS1-142 — VI 142

PI 143 — PI-DS1-143

B/I-1.62 — 3" BW

VACUUM TRANSMITTER

VACUUM INDICATOR

M

BWP-DS1-B

PRESSURE INDICATOR

A/I-1.61 — FILTER DS3 BACKWASH RECIRCULATION

4" BW

A/I-1.79 — BACKWASH WASTE CHANNEL

PRELIMINARY - FOR REFERENCE ONLY

FIGURE 7

XREFS: TB-WE-D

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WATER RECLAMATION FACILITY
IMPROVEMENTS
AWRF - FILTER DS1 BACKWASH PUMPS P&ID - SHEET 3 OF 3

CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

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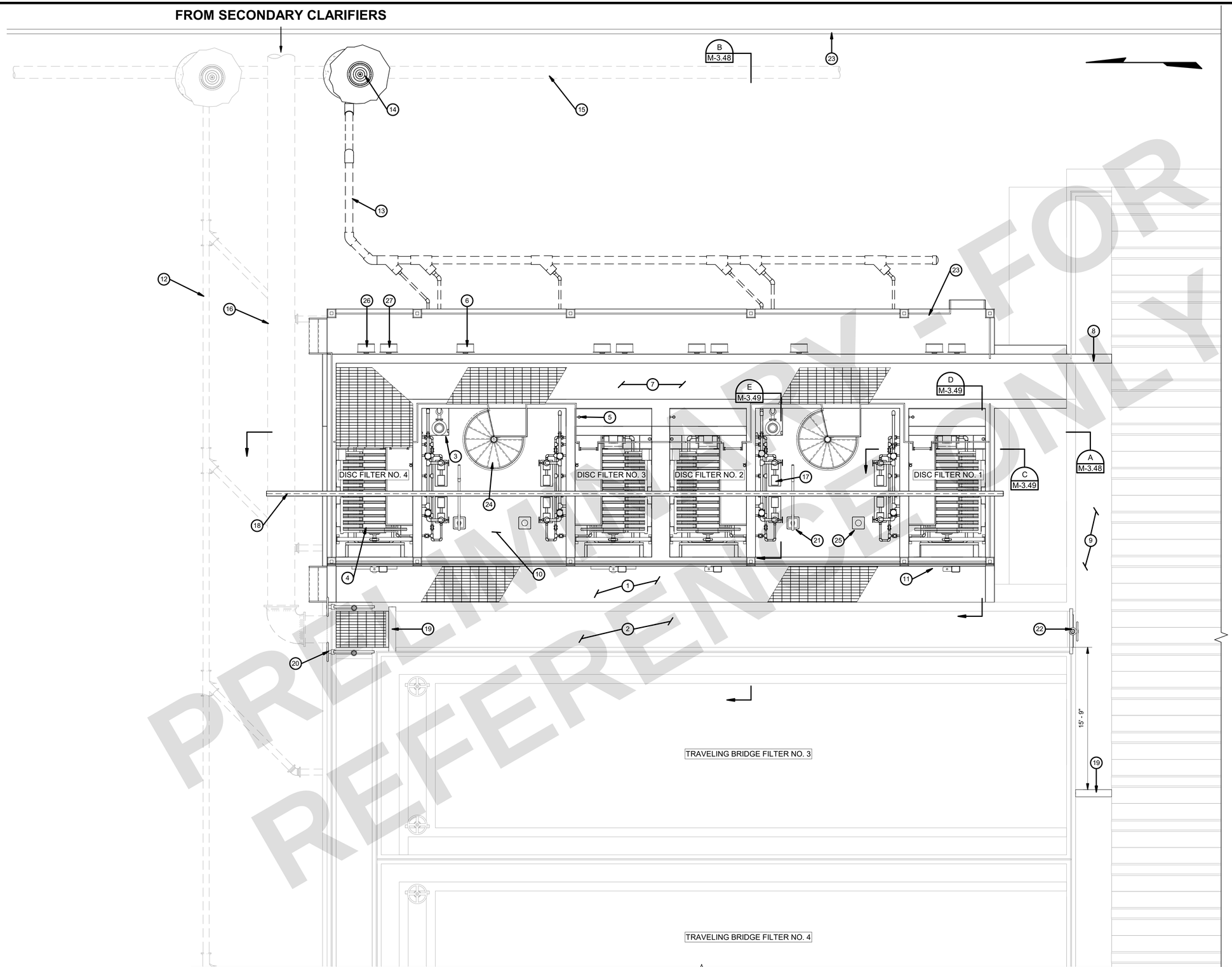
Sheet No. I-1.63



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NOTES:
1. CANOPY OVER DISC FILTERS NOT SHOWN FOR CLARITY.

UPPER PLAN
3/16" = 1'-0"

KEYED NOTES

1. INFLUENT CHANNEL
2. FILTER BYPASS CHANNEL
3. 3'-0"L x 3'-0"W x 3'-0"D SUMP
4. CLOTH MEDIA DISC FILTER (TYP)
5. TURBIDITY PROBE (TYP)
6. SUMP PUMP CONTROL PANELS (TYP OF 2)
7. DISC FILTER EFFLUENT CHANNEL
8. CONCRETE WALL FOR CHANNEL ISOLATION
9. COMMON FILTER EFFLUENT CHANNEL
10. PUMP GALLERY (TYP)
11. 4'-0"W x 2'-0" INFLUENT SLIDE GATES WITH MOTORIZED ACTUATOR (TYP OF 4)
12. 8" DIA PLANT DRAIN PIPING
13. 10" DIA PVC FILTER BACKWASH DRAIN PIPE
14. 5'-0" DIA MANHOLE
15. 15" DIA PLANT SEWER PIPING
16. 42" DIA INFLUENT PIPING
17. FILTER BACKWASH/SOLIDS WASTE PUMPS (TYP)
18. MONORAIL
19. STOP LOG ASSEMBLY
20. 4'-0"W X 7'-0"H SLIDE GATE (TYP)
21. DAVIT CRANE (TYP)
22. 4'-0"W X 5'-0"H SLIDE GATE
23. EDGE OF EXISTING ROADWAY
24. PUMP GALLERY ACCESS STAIRS
25. DAVIT CRANE SOCKET (TYP)
26. VENDOR CONTROL PANEL (TYP OF 4)
27. VENDOR POWER PANEL (TYP OF 4)

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OWRF - FILTERS
OVERALL TOP PLAN

CITY PROJECT NO. ww1901.201
WILSON PROJECT NO. 19038

Design: KG	Drawn: JRW	Checked: SR
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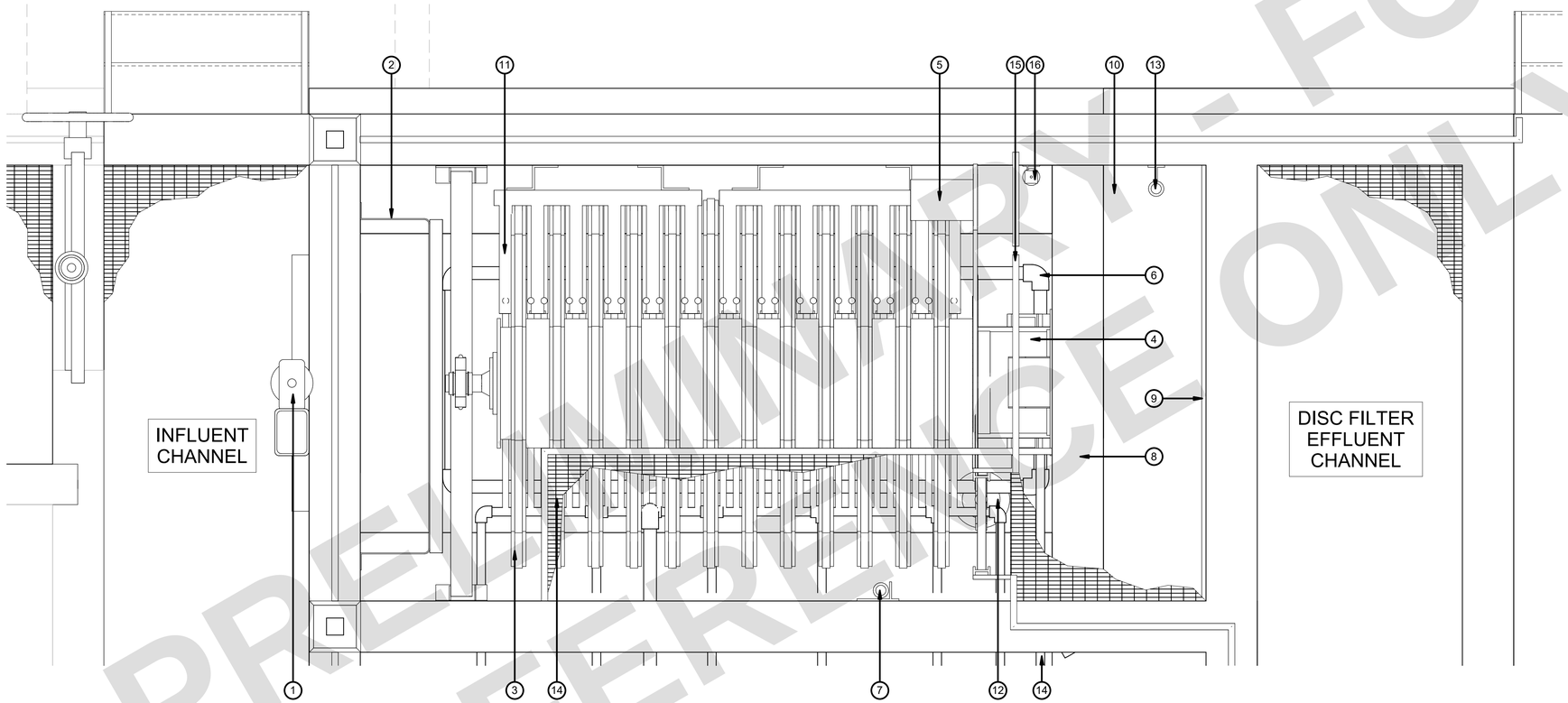
Sheet No. M-3.44

FIGURE 8

60% SUBMITTAL - NOT FOR CONSTRUCTION OR RECORDING



FILTER BASIN 4 PLAN

3/4" = 1'-0"

KEYED NOTES

1. 4'-0"W x 2'-0"H INFLUENT SLIDE GATE WITH MOTORIZED ACTUATOR
2. INFLUENT WEIR BOX
3. CLOTH MEDIA DISC FILTER
4. DISC FILTER CENTERTUBE
5. FILTER DRIVE ASSEMBLY
6. WASTE SOLIDS COLLECTION MANIFOLD
7. PRESSURE TRANSDUCER
8. OVERFLOW WEIR WALL
9. EFFLUENT WEIR
10. FILTER EFFLUENT CHAMBER
11. FILTER BACKWASH SHOE ASSEMBLY
12. 4" DIA MUD VALVE
13. TURBIDITY PROBE
14. DISK FILTER MAINTENCE ACCESS PLATFORM
15. REMOVABLE SECTION OF GUARDRAIL FOR FILTER DRIVE MAINTENCE
16. FLOAT SWITCH

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CITY OF CHANDLER
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OWRF - FILTERS
FILTER BASIN 1 PLAN

CITY PROJECT NO. ww1901.201
WILSON PROJECT NO. 19036

Design: KG
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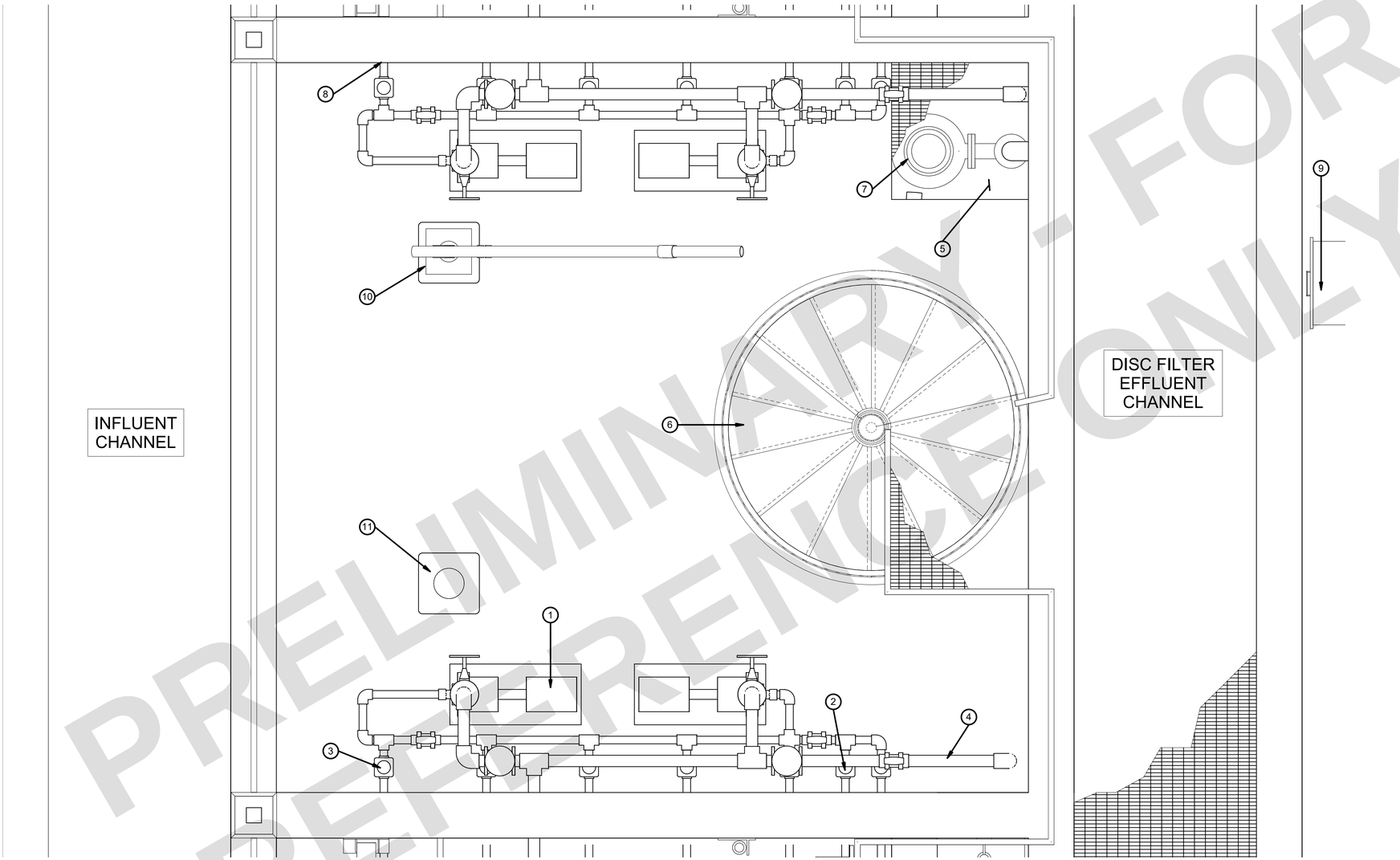
Sheet No. M-3.46

FIGURE 9

60% SUBMITTAL - NOT FOR CONSTRUCTION OR RECORDING



PUMP GALLERY

3/4" = 1'-0"

PRELIMINARY - FOR REFERENCE ONLY

KEYED NOTES

1. BACKWASH / SOLIDS WASTE PUMP (TYP)
2. 2" DIA MOTOR ACTUATED BACKWASH BALL VALVE (TYP)
3. 2" DIA MOTOR ACTUATED SOLIDS WASTE BALL VALVE (TYP)
4. 3" DIA PVC PIPING (TYP)
5. PUMP GALLERY SUMP
6. PUMP GALLERY ACCESS STAIRS
7. SUBMERSIBLE SUMP PUMP
8. SLEEVE WITH LINK SEAL (TYP) SEE DETAIL 103, SHEET M-7.01
9. SUMP PUMP CONTROL PANEL
10. DAVIT CRANE
11. DAVIT CRANE SOCKET, SEE DETAIL 408, SHEET M-7.04

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OWRF - FILTERS PUMP GALLERY

CITY PROJECT NO. ww1901.201
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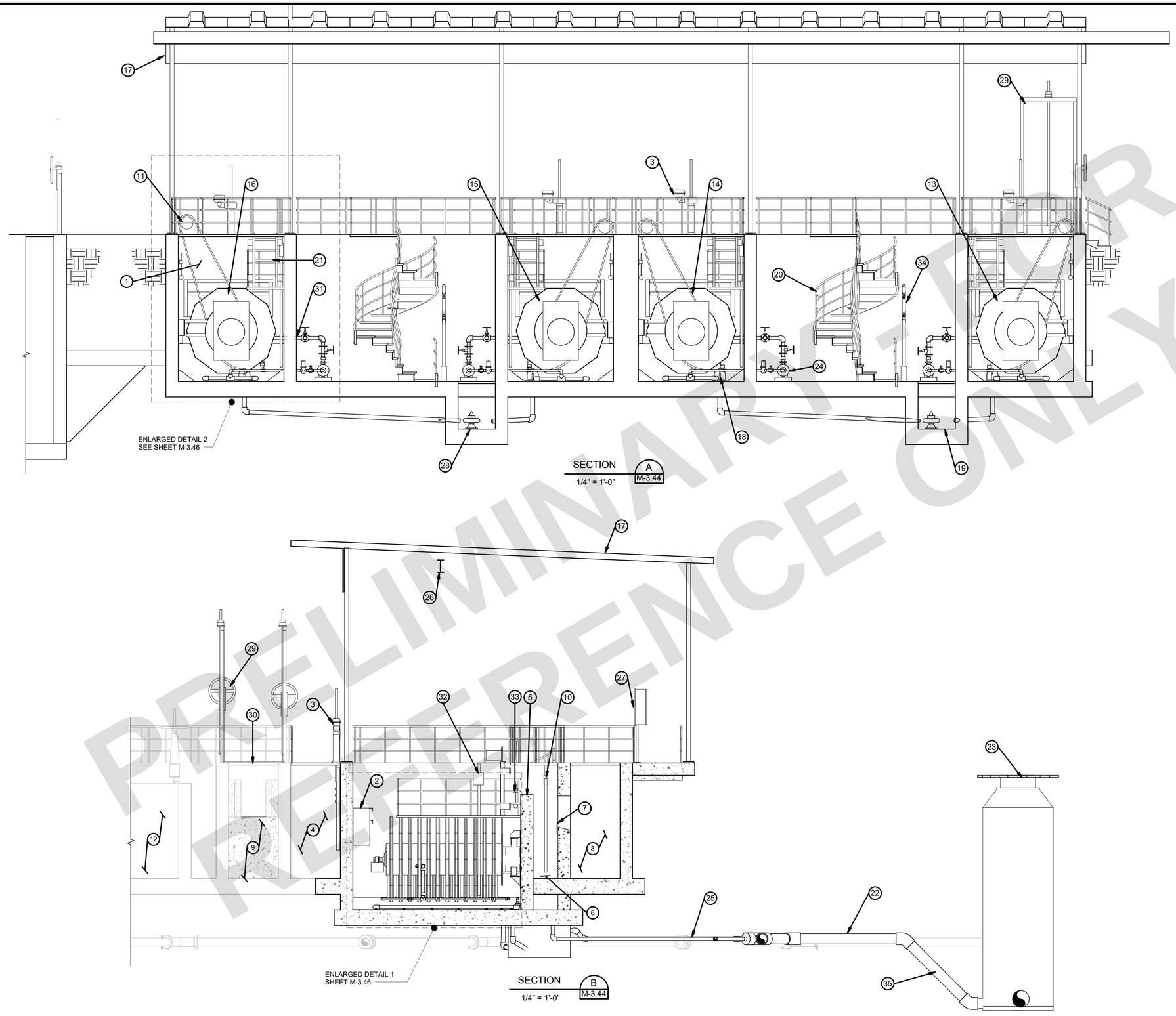
Sheet No. M-3.47

FIGURE 10

60% SUBMITTAL - NOT FOR CONSTRUCTION OR RECORDING



SECTION A M-3.44
1/4" = 1'-0"

SECTION B M-3.44
1/4" = 1'-0"

PRELIMINARY FOR REFERENCE ONLY

KEYED NOTES

1. CLOTH MEDIA DISC FILTER BASIN
2. INFLUENT WEIR BOX
3. 4'-0"W x 2'-0"H INFLUENT SLIDE GATE WITH MOTORIZED ACTUATOR (TYP)
4. INFLUENT CHANNEL
5. OVERFLOW WEIR WALL
6. FILTER EFFLUENT CHAMBER
7. EFFLUENT WEIR
8. DISC FILTER EFFLUENT CHANNEL
9. FILTER BYPASS CHANNEL
10. TURBIDITY PROBE
11. FILTER DRIVE ASSEMBLY
12. TRAVELING BRIDGE FILTER BASIN NO. 3
13. DISC FILTER NO. 4
14. DISC FILTER NO. 3
15. DISC FILTER NO. 2
16. DISC FILTER NO. 1
17. FILTER CANOPY, SEE STRUCTURAL, SHEET S-3.44
18. 4" DIA MUD VALVE (TYP) SEE DETAIL 401, SHEET M-7.04
19. 3'-0"L X 3'-0"W X 3'-0"D SUMP
20. PUMP GALLERY ACCESS STAIRS
21. FILTER BASINS ACCESS LADDER
22. 10" DIA PVC FILTER BACKWASH PIPING
23. 5'-0" DIA MANHOLE
24. BACKWASH/SOLIDS WASTE PUMPS (TYP)
25. 3" DIA PVC FILTER BACKWASH PIPING
26. MONORAIL
27. ELECTRICAL PANELS
28. SUMP PUMP
29. 4'-0"W x 7'-0"H SLIDE GATE
30. STOP LOG ASSEMBLY
31. 3" DIA PVC RECIRCULATION
32. PRESSURE TRANSDUCER
33. FLOAT SWITCH
34. DAVIT CRANE (TYP)
35. SEE MAG DETAIL 426, TYPE A

FIGURE 11

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CITY OF CHANDLER
WATER RECLAMATION FACILITY IMPROVEMENTS
OWRF - FILTERS
SECTIONS AND DETAILS 1

CITY PROJECT NO. ww1901.201
WILSON PROJECT NO. 19038

Design: KG | Drawn: JRW | Checked: SR
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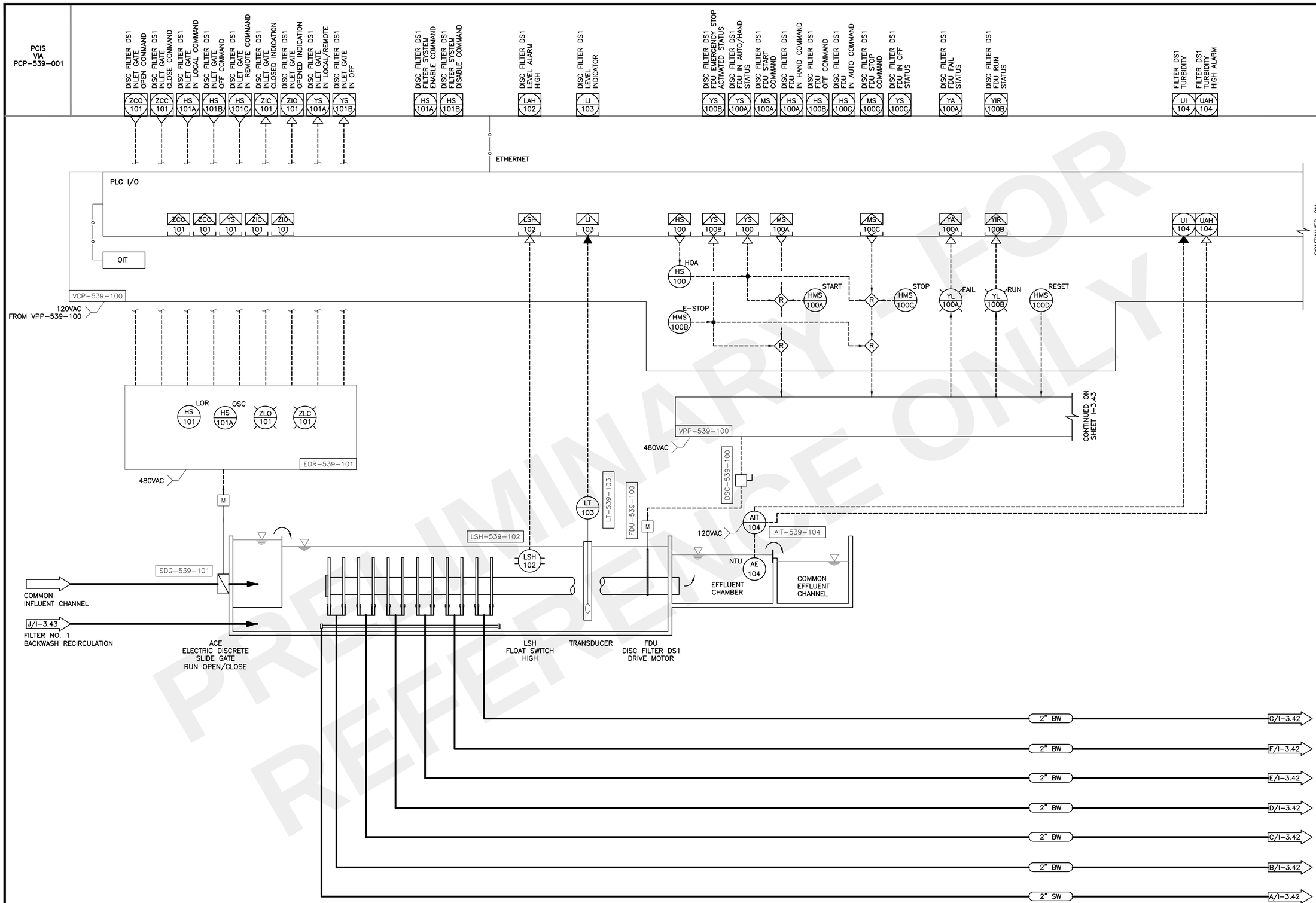

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FIGURE 12

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CITY OF CHANDLER
WATER RECLAMATION FACILITY IMPROVEMENTS
OWRF - DISC FILTER DS1 P&ID SHEET 1 OF 3
CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

Design: PKP	Drawn: CRG	Checked: MAC
Date: 11/2020	Wilson Project No.: 19038	

Revision	Date	Description	By

VERIFY SCALES
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Sheet No. I-3.41

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PCIS
VIA
PCP-539-001

TYPICAL FOR 6 BACKWASH VALVES

DISC FILTER DS1 SOLIDS WASTE VALVE 1 IN LOCAL COMMAND	DISC FILTER DS1 SOLIDS WASTE VALVE 1 OFF COMMAND	DISC FILTER DS1 SOLIDS WASTE VALVE 1 IN REMOTE COMMAND	DISC FILTER DS1 SOLIDS WASTE VALVE 1 CLOSED INDICATION	DISC FILTER DS1 SOLIDS WASTE VALVE 1 OPENED INDICATION	DISC FILTER DS1 SOLIDS WASTE VALVE 1 IN LOCAL/REMOTE STAT	DISC FILTER DS1 SOLIDS WASTE VALVE 1 IN OFF STATUS	DISC FILTER DS1 BACKWASH VALVE 1 IN LOCAL COMMAND	DISC FILTER DS1 BACKWASH VALVE 1 OFF COMMAND	DISC FILTER DS1 BACKWASH VALVE 1 IN REMOTE COM	DISC FILTER DS1 BACKWASH VALVE 1 CLOSED INDICATION	DISC FILTER DS1 BACKWASH VALVE 1 OPENED INDICATION	DISC FILTER DS1 BACKWASH VALVE 1 IN LOCAL/REMOTE	DISC FILTER DS1 BACKWASH VALVE 1 IN OFF STATUS
HS 111A	HS 111B	HS 111C	ZIC 111	ZIO 111	YS 111A	YS 111B	HS 121A	HS 121B	HS 121C	ZIC 121	ZIO 121	YS 121A	YS 121B

CONTINUED FROM SHEET I-3.41

PLC I/O

ZCO 111	ZCO 111	HS 111	ZIC 111	ZIO 111	ZCO 121	ZCO 121	HS 121	ZIC 121	ZIO 121	ZCO 122	ZCO 122	HS 122	ZIC 122	ZIO 122	ZCO 123	ZCO 123	HS 123	ZIC 123	ZIO 123
ZCO 124	ZCO 124	HS 124	ZIC 124	ZIO 124	ZCO 125	ZCO 125	HS 125	ZIC 125	ZIO 125	ZCO 126	ZCO 126	HS 126	ZIC 126	ZIO 126					

VCP-539-100

CONTINUED ON SHEET I-3.43

G/I-3.41
F/I-3.41
E/I-3.41
D/I-3.41
C/I-3.41
B/I-3.41
A/I-3.41

120VAC FROM VPP-539-100 TYP FOR 7

M MOV-539-126 BACKWASH VALVE NO. 6
M MOV-539-125 BACKWASH VALVE NO. 5
M MOV-539-124 BACKWASH VALVE NO. 4
M MOV-539-123 BACKWASH VALVE NO. 3
M MOV-539-122 BACKWASH VALVE NO. 2
M MOV-539-121 BACKWASH VALVE NO. 1
M MOV-539-111 SOLIDS WASTE VALVE NO. 1

120VAC

2" BW
2" BW
2" BW
2" BW
2" BW
2" BW
2" SW

3" BW → A/I-3.43
3" BW → B/I-3.43

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IMPROVEMENTS
OWRF - DISC FILTER DS1 P&ID
SHEET 2 OF 3
CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

Revision	Date	Description	By

Design: PKP
Date: 11/2020
Drawn: CRG
Wilson Project No.: 19038
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Sheet No. I-3.42

FIGURE 13

60% SUBMITTAL - NOT FOR CONSTRUCTION OR RECORDING

PCIS
VIA
PCP-539-001

DISC FILTER DS1 HIGH VACUUM B STATUS — UAH 141
DISC FILTER DS1 VACUUM B INDICATOR — VI 141
DISC FILTER DS 1 HIGH VACUUM A STATUS — UAH 131
DISC FILTER DS 1 VACUUM A INDICATOR — VI 131
DISC FILTER DS1 BACKWASH PUMP B IN HAND COMMAND — HS 140A
DISC FILTER DS1 BACKWASH PUMP B OFF COMMAND — HS 140B
DISC FILTER DS1 BACKWASH PUMP B IN AUTO COMMAND — HS 140C
DISC FILTER DS1 BACKWASH PUMP B E-STOP ACTIVATED — YS 140C
DISC FILTER DS1 BACKWASH PUMP B IN AUTO/HAND STATUS — YS 140A
DISC FILTER DS1 BACKWASH PUMP B START COMMAND — MS 140B
DISC FILTER DS1 BACKWASH PUMP B IN OFF STATUS — YS 140B
DISC FILTER DS1 BACKWASH PUMP B STOP COMMAND — MS 140A
DISC FILTER DS1 BACKWASH PUMP B FAIL STATUS — YA 140A
DISC FILTER DS1 BACKWASH PUMP B RUN STATUS — YIR 140B
DISC FILTER DS1 BACKWASH PUMP A IN HAND COMMAND — HS 130A
DISC FILTER DS1 BACKWASH PUMP A OFF COMMAND — HS 130B
DISC FILTER DS1 BACKWASH PUMP A IN AUTO COMMAND — HS 130C
DISC FILTER DS1 BACKWASH PUMP A E-STOP ACTIVATED — YS 130C
DISC FILTER DS1 BACKWASH PUMP A IN AUTO/HAND STATUS — YS 130A
DISC FILTER DS1 BACKWASH PUMP A START COMMAND — MS 130B
DISC FILTER DS1 BACKWASH PUMP A IN OFF STATUS — YS 130B
DISC FILTER DS1 BACKWASH PUMP A STOP COMMAND — MS 130A
DISC FILTER DS1 BACKWASH PUMP A FAIL STATUS — YA 130A
DISC FILTER DS1 BACKWASH PUMP A RUN STATUS — YIR 130B

PLC I/O

CONTINUED FROM SHEET I-3.42

VCP-539-100

HOA HS 140 — START HMS 140B — STOP HMS 140A — E-STOP HMS 140C — FAIL YL 140A — RUN YL 140B — RESET HMS 140D — ETM KQI 140

HOA HS 130 — START HMS 130B — STOP HMS 130A — E-STOP HMS 130C — FAIL YL 130A — RUN YL 130B — RESET HMS 130D — ETM KQI 130

CONTINUED FROM SHEET I-3.41

VPP-539-100

DSC-539-140

DSC-539-130

VT-539-131

VT 131 — VACUUM TRANSMITTER A

VI-539-132

VI 132 — VACUUM INDICATOR

PI 133 — PI-539-133 — PRESSURE INDICATOR

M — BW PUMP A — BWP-539-130

A/I-3.42 — 3" BW

VT-539-141

VT 141 — VACUUM TRANSMITTER B

VI-539-142

VI 142 — VACUUM INDICATOR

PI 143 — PI-539-143 — PRESSURE INDICATOR

M — BW PUMP B — BWP-539-140

B/I-3.42 — 3" BW

J/I-3.41 — FILTER NO. DS1 BACKWASH RECIRCULATION

4" BW

A/I-3.53 — TO FILTER BASINS SUMP

PRELIMINARY FOR REFERENCE ONLY

1620 West Fountainhead Pkwy
Suite 501
Tempe, Arizona 85282
Phone: (480) 893-8860
Improving Arizona's Infrastructure Since 1942

WILSON ENGINEERS

CITY OF CHANDLER
WATER RECLAMATION FACILITY
IMPROVEMENTS
OWRF - DISC FILTER DS1 P&ID
SHEET 3 OF 3
CITY PROJECT NO. WW1901.201
WILSON PROJECT NO. 19038

Design: PKP | Drawn: CRG | Checked: MAC
Date: 11/2020 | Wilson Project No.: 19038

Revision	Date	Description	By

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

Sheet No. I-3.43

FIGURE 14

60% SUBMITTAL - NOT FOR CONSTRUCTION OR RECORDING

EXHIBIT D

ACCEPTED GMP/PRICE PROPOSAL

City of Chandler Water Reclamation Facility Improvements Project

Project No. WW1901.401

GMP #1 Proposal

January 8, 2021 Rev. February 16, 2021

City of Chandler Water Reclamation Facility Improvements Project

January 8, 2021 Rev. February 16, 2021

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- LIST OF SUBCONTRACTORS AND SUPPLIERS

SECTION 3 **WORK CATEGORY SCHEDULE OF VALUES ("SOV")**

SECTION 4 **GMP CLARIFICATIONS AND ASSUMPTIONS**

SECTION 5 **PRELIMINARY PROJECT SCHEDULE**

SECTION 6 **LIST OF GMP PLANS AND SPECIFICATIONS**

SECTION 7 **GENERAL CONDITIONS AND RATES**

City of Chandler Water Reclamation Facility Improvements Project

PROJECT DESCRIPTION

January 8, 2021 Rev. February 16, 2021

Project Description

The overall project consists of improvements to the Airport Water Reclamation Facility (AWRF) and the Ocotillo Water Reclamation Facility (OWRF). This GMP only includes select early work for the project as follows:

The following Work Packages include procurement only. Installation has not been included as it will be part of a future GMP.

- Disc Filters
- Stainless Steel Gates

PROJECT COST SUMMARY

January 8, 2021 Rev. February 16, 2021

Project: **Chandler Water Reclamation Facility Improvements Project**
GMP #1 Proposal

Client: **City of Chandler**

Location: **Chandler, AZ**

City Project # **WW1901.401**

		Percentage	Amount
A. Direct Costs			
A1	Direct Cost		$4,165,419
A2	Construction Contingency	4.0%	$166,617
	TOTAL DIRECT COSTS:		***$4,332,036***
B. General Conditions on Direct Costs only			
B	General Conditions	2.7%	$118,313
	SUBTOTAL 1 (Cost of the Work):		**$4,450,349**
C. CM@Risks's Fee on Cost of Work only			
	CMAR Construction Fee	7.0%	$311,524
	SUBTOTAL 2		**$4,761,873**
D. Bonds and Insurance			
D1	Performance and Payment Bonds	0.7%	$33,333
D2	Insurance (PL/PD, Builders Risk)	1.2%	$59,047
	Bonds & Insurance Allowance Total		***$92,380***
	SUBTOTAL 3		**$4,854,253**
E. Sales Tax			
E1	Sales Tax (65% of 7.8%)	5.07%	$246,111
E2	Tax Credits		($196,724)
	TOTAL SALES TAX		***$49,387***
F. Allowances			
F1	COVID/Force Majeure Allowance		$200,000
F2	Owner Allowance		$739,097
	TOTAL GMP #1 PROPOSAL		**$5,842,737**

TAX EXEMPT SUMMARY

January 8, 2021 Rev. February 16, 2021

Project: **Chandler Water Reclamation Facility Improvements Project**
GMP #1 Proposal
Client: **City of Chandler**
Location: **Chandler, AZ**
City Job # **WW1901.401**

	DESCRIPTION			Total Tax Exempt Value
01A	General Requirements			$0
11A	Disc Filters			$3,430,560
11B	Stainless Steel Slide Gates			$449,600
	Total Tax Exempt Amount			***$3,880,160***
	Gross Receipts Tax Credit, 65% * 7.8%	5.07%	$	(196,724)

LIST OF SUBCONTRACTORS AND SUPPLIERS

January 8, 2021 Rev. February 16, 2021

Project: **Chandler Water Reclamation Facility Improvements Project**
GMP #1 Proposal

Client: **City of Chandler**

Location: **Chandler, AZ**

City Project # **WW1901.401**

Work Category	DESCRIPTION	Subcontractor / Supplier
Recommended Subcontractors / Suppliers		
11A	Disc Filters	IES Southwest (Aqua Aerobics)
11B	Stainless Steel Slide Gates	Coombs (Whipps/Auma)

WORK CATEGORY SCHEDULE OF VALUES ("SOV")

January 8, 2021 Rev. February 16, 2021

Project: **Chandler Water Reclamation Facility Improvements Project**
GMP #1 Proposal

Client: **City of Chandler**

Location: **Chandler, AZ**

City Project # **WW1901.401**

Work Category	Description	Total
A. DIRECT COSTS		
01A	General Requirements	$43,023
11A	Disc Filters	$3,598,173
11B	Stainless Steel Slide Gates	$524,223
	Direct Cost Subtotal	***$4,165,419***

City of Chandler Water Reclamation Facility Improvements Project

GMP #1 CLARIFICATIONS AND ASSUMPTIONS

January 8, 2021 Rev. February 16, 2021

General

1. Liquidated damages have been assumed to be per MAG section 108.9.
2. The cost of reuse water, sewer, power, and chemical usage during construction and start-up is not included.
3. Transaction Privilege Tax has been included at 7.8% based on the projects being in the City of Chandler. Tax exemptions have also been included.
4. No cost has been included for security guards.
5. The following are City of Chandler project costs and have not been included in the cost model:
    a. Temporary/construction/startup use and permanent utility hookup and usage costs including power, sewer, reuse water
    b. Building and Environmental Permits, MCDES and ADEQ permitting fees, plan review fees and impact costs
    c. Special Inspection Fees
    d. Asbestos testing and Hazardous Waste removal
    e. Furnishings, Fixtures, and Equipment (FFE) and design of FFE
6. Submittals have been included to be submitted in electronic format only. No hard copies of shop drawings will be submitted.
7. Section 4.1.4 of the Construction Services Contract (Construction Manager at Risk) is rewritten as follows:
    "4.1.4 CM@RISK is responsible for undertaking all necessary action contemplated under the contract documents to construct the Project and ensure timely and quality completion of the Project at a cost within the Guaranteed Maximum Price (GMP)."
8. General Conditions have been included for GMP 1 only through the equipment check-in period.
9. COVID-19/Force Majeure Allowance: This allowance to be used only under authorization by the City. This allowance is available if the parties agree conditions that directly arise out of or directly result from the COVID19 pandemic or other force majeure event as defined in General Conditions Article 6.2.14, which may excuse a party's performance under this clause. The party who seeks to invoke this clause must give the other party written notice 30 days after the occurrence of the event giving rise to such condition and the parties must agree in writing to the length of excused or suspended performance. An allowance has been established to cover increases in costs incurred by Contractor resulting from the COVID19 pandemic or force majeure event, which allowance may be used by Contractor subject to the prior written approval of the City, which approval shall not be unreasonably withheld.

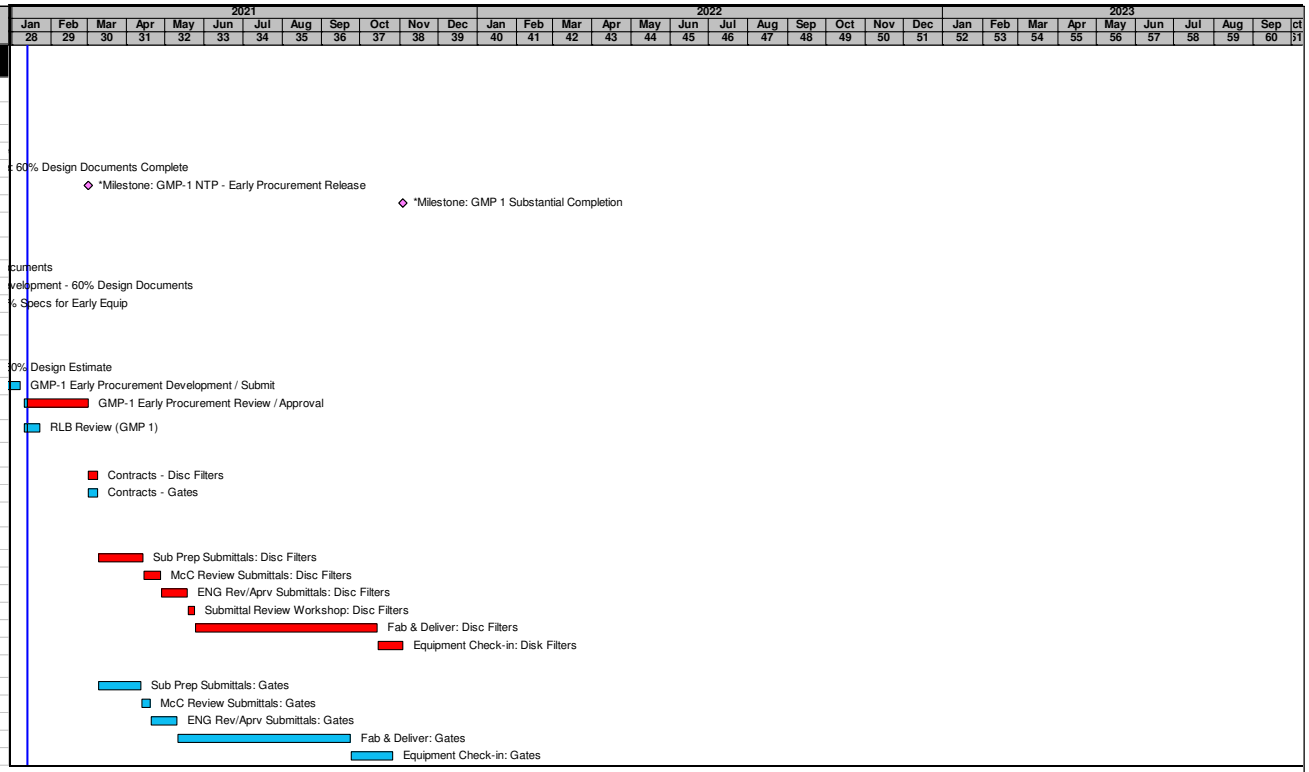
Work Category 11A – Disc Filters

1. This Work Category includes 5 filters at the Airport Plant, and 4 filters at the Ocotillo plant.
2. The backwash and solid waste valves have been included as 2" as shown on the P&ID drawings.

Work Category 11B – Stainless Steel Slide Gates

1. The gate quantities and sizes are based on the 60% gate schedule dated November 2020.
2. Guides are to be a single piece construction.
3. A 6P NEMA box has been included in lieu of a 4X.

Activity ID	Activity Name	Orig Dur	Start	Finish
Chandler Water Reclamation Facility Improveme		468d	06-Jan-20 A	03-Nov-21
Overview		468d	06-Jan-20 A	03-Nov-21
Milestones		468d	06-Jan-20 A	03-Nov-21
MIL-100	*Milestone: Project Award	0d	06-Jan-20 A	
MIL-110	*Milestone: 30% Design Documents Complete	0d		24-Jun-20 A
MIL-140	*Milestone: 60% Design Documents Complete	0d		11-Nov-20 A
MIL-160	*Milestone: GMP-1 NTP - Early Procurement Release	0d		01-Mar-21
MIL-170	*Milestone: GMP 1 Substantial Completion	0d		03-Nov-21*
Preconstruction		211d	13-May-20 A	01-Mar-21
Design		132d	13-May-20 A	10-Dec-20 A
PD-100	Design Development - 30% Design Documents	30d	13-May-20 A	24-Jul-20 A
PD-110	Design Development - 60% Design Documents	60d	27-Jul-20 A	11-Nov-20 A
PD-150	90% Specs for Early Equip	48d	11-Sep-20 A	10-Dec-20 A
GMP		150d	24-Jul-20 A	01-Mar-21
P-GMP-100	30% Design Estimate	40d	24-Jul-20 A	14-Sep-20 A
P-GMP-110	60% Design Estimate	40d	12-Nov-20 A	18-Dec-20 A
P-GMP-140	GMP-1 Early Procurement Development / Submit	79d	18-Nov-20 A	08-Jan-21 A
P-GMP-160	GMP-1 Early Procurement Review / Approval	34d	11-Jan-21 A	01-Mar-21
P-GMP-170	RLB Review (GMP 1)	10d	11-Jan-21 A	22-Jan-21
Contracts		6d	02-Mar-21	09-Mar-21
P-CO-110	Contracts - Disc Filters	6d	02-Mar-21	09-Mar-21
P-CO-120	Contracts - Gates	6d	02-Mar-21	09-Mar-21
Procurement		168d	10-Mar-21	03-Nov-21
Disc Filters		168d	10-Mar-21	03-Nov-21
P-PR-160	Sub Prep Submittals: Disc Filters	25d	10-Mar-21	13-Apr-21
P-PR-170	McC Review Submittals: Disc Filters	10d	14-Apr-21	27-Apr-21
P-PR-180	ENG Rev/Aprv Submittals: Disc Filters	15d	28-Apr-21	18-May-21
P-PR-190	Submittal Review Workshop: Disc Filters	4d	19-May-21	24-May-21
P-PR-210	Fab & Deliver: Disc Filters	100d	25-May-21	14-Oct-21
MIL-200	Equipment Check-in: Disk Filters	14d	15-Oct-21	03-Nov-21
Gates		162d	10-Mar-21	26-Oct-21
P-PR-280	Sub Prep Submittals: Gates	24d	10-Mar-21	12-Apr-21
P-PR-290	McC Review Submittals: Gates	5d	13-Apr-21	19-Apr-21
P-PR-300	ENG Rev/Aprv Submittals: Gates	15d	20-Apr-21	10-May-21
P-PR-330	Fab & Deliver: Gates	95d	11-May-21	23-Sep-21
MIL-210	Equipment Check-in: Gates	23d	24-Sep-21	26-Oct-21



City of Chandler Water Reclamation Facility Improvements Project

List of GMP Plans and Specifications

January 8, 2021 Rev. February 16, 2021

GMP 1 Specifications

Specification Section	*# Pages*	*Date Issued*
Section 01010- Summary of Work	3	December 2020
Section 01300- Submittals	15	December 2020
Section 01640- Materials and Equipment	5	December 2020
Section 01650- Starting of Systems	9	December 2020
Section 01660- Field Tests of Equipment	3	December 2020
Section 01730- Operation and Maintenance Data	4	December 2020
Section 01750- Spare Parts and Maintenance Materials	3	December 2020
Section 01821- Instruction of Operations and Maintenance Personnel	5	December 2020
Section 03300- Cast in Place Concrete	23	December 2020
Section 09900- Painting	22	December 2020
Section 11285- Hydraulic Gates and Stop Logs	11	December 2020
Gate/Stop Log Schedule (60% Submittal)	Pg 12- 20	November 2020
Section 11400- Disc Filters	21	December 2020
Section 13447- Electric Motor Actuators	21	December 2020
Section 16160- Enclosures	2	December 2020
Section 16161- Control Panels	34	December 2020
Section 16170- Grounding and Bonding	8	December 2020
Section 16225- Electric Motors	10	December 2020
Section 16474- Motor Control Equipment	6	December 2020
Section 16476- Low Voltage Circuit Breakers	2	December 2020
Section 16482- Solid State Motor Controllers	6	December 2020
Section 16951- Short Circuit, Coordination, and Arc-Flash Hazard Report	5	December 2020
Section 17325- Turbidity and TSS Analyzer	5	December 2020
Section 17454- Operations and Control Descriptions	34	December 2020

*This GMP only includes the procurement of the items described in Section 1 and the directly associated specification sections. All other specification sections are supporting documents.

GMP 1 Plans

Sheet #	*Sheet Name*	*Sheet Version*	*Date of Print*	*Date of Issuance*
M – 1.64	AWRF – Filters Overall Plan	60% Submittal	11/11/2020 @5:22:06 PM	12/10/2020
M – 1.65	AWRF – Filter Basin 5 Plan	60% Submittal	11/11/2020 @5:22:07 PM	12/10/2020
M – 1.66	AWRF – Filter Pump Gallery	60% Submittal	11/12/2020 @8:14:53 AM	12/10/2020
M – 1.67	AWRF – Filters Section 1	60% Submittal	11/11/2020 @5:22:11 PM	12/10/2020
I – 1.61	AWRF – Filter DS1 P&ID Sheet 1 of 3	60% Submittal	12/8/2020 @1:44:36 PM	12/10/2020
I – 1.62	AWRF – Filter DS1 Backwash Valves P&ID Sheet 2 of 3	60% Submittal	12/8/2020 @1:44:38 PM	12/10/2020
I – 1.63	AWRF – Filter DS1 Backwash Valves P&ID Sheet 3 of 3	60% Submittal	12/8/2020 @1:44:40 PM	12/10/2020
M – 3.44	OWRF – Filters Overall Top Plan	60% Submittal	11/11/2020 @1:25:37 PM	12/10/2020
M – 3.46	OWRF – Filters Filter Basin 1 Plan	60% Submittal	11/11/2020 @1:25:38 PM	12/10/2020
M – 3.47	OWRF – Filters Filter Pump Gallery	60% Submittal	11/11/2020 @1:25:39 PM	12/10/2020
M – 3.48	OWRF – Filters Sections and Details 1	60% Submittal	11/11/2020 @1:25:41 PM	12/10/2020
I – 3.41	OWRF – Disc Filter DS1 P&ID Sheet 1 of 3	60% Submittal	12/8/2020 @1:45:20 PM	12/10/2020
I – 3.42	OWRF – Disc Filter DS1 P&ID Sheet 2 of 3	60% Submittal	12/8/2020 @1:45:22 PM	12/10/2020
I – 3.43	AWRF – Disc Filter DS1 P&ID Sheet 3 of 3	60% Submittal	12/8/2020 @1:45:24 PM	12/10/2020

City of Chandler Water Reclamation Facility Improvements Project

Project No. WW1901.401

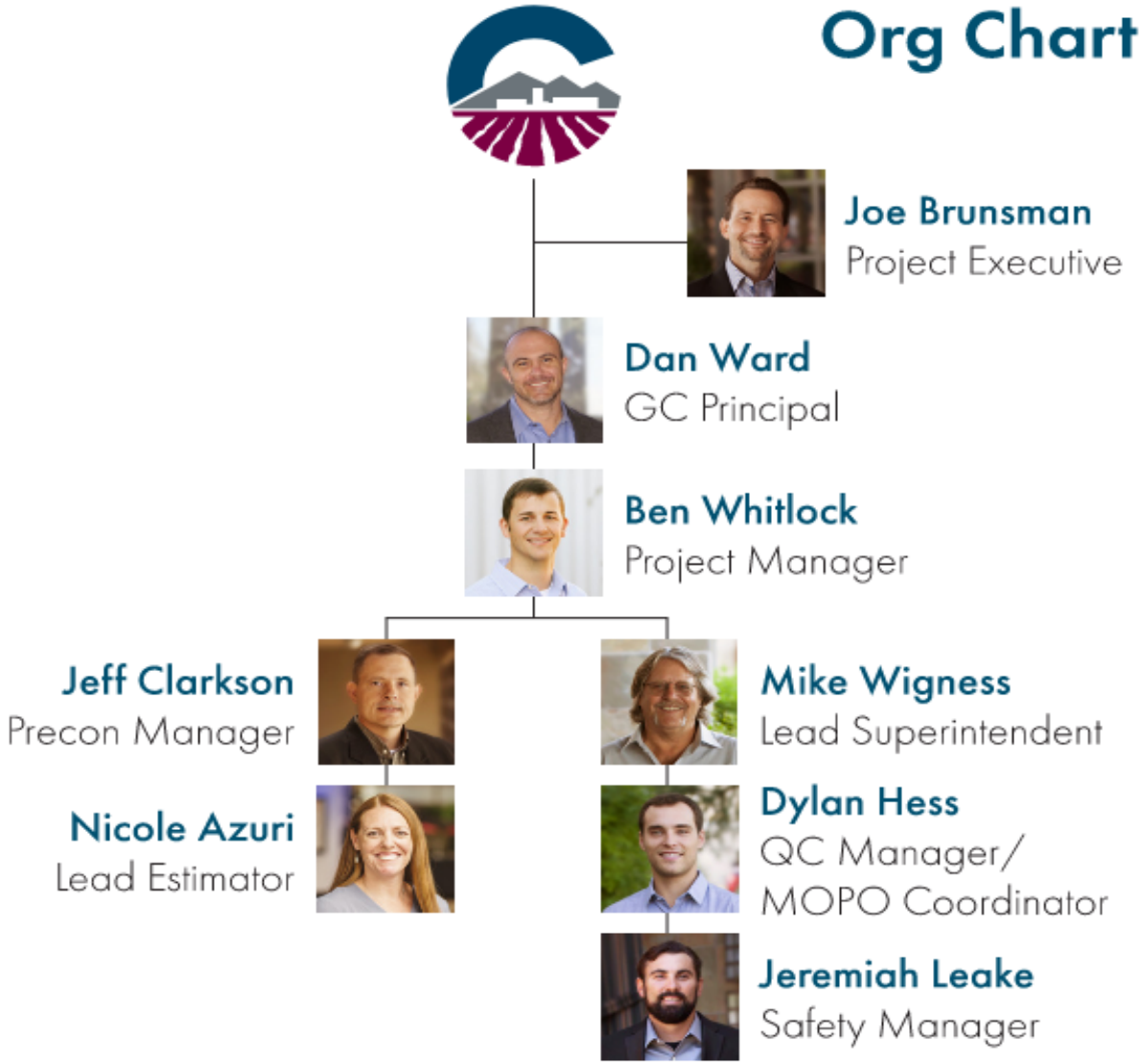
January 8, 2021 Rev. February 16, 2021

GENERAL CONDITIONS

Early Procurement

							TOTALS		
POSITION	**QTY**	**UNIT**	**PRICE**	**TOTAL**	**Start**	**End**	**Hours**	**Wks**	**Months**
Project Director	0.75	WKS	$ 5,858	$ 4,394	3/1/2021	11/3/2021	30	0.75	0.2
Project Manager	10.0	WKS	$ 5,168	$ 51,680	3/1/2021	11/3/2021	400	10.00	2.3
General Superintendent	5.5	WKS	$ 5,501	$ 30,256	3/1/2021	11/3/2021	220	5.50	1.3
Project Engineer	8.0	WKS	$ 3,673	$ 29,384	3/1/2021	11/3/2021	320	8.00	1.8
Project Administrator	1.0	WKS	$ 2,600	$ 2,600	3/1/2021	11/3/2021	40	1.00	0.2
			Subtotal	$ 118,313					
TOTAL GENERAL CONDITIONS				**$ 118,313**					

McCarthy Org Chart submitted with December 2019 proposal:



City of Chandler Water Reclamation Facility Improvements Project

Project No. WW1901.401

January 8, 2021 Rev. February 16, 2021

McCarthy Non-Staff Unit Rates

	Hourly
General Foreman	$72.70
Foreman	$58.31
Carpenter	$54.59
Finisher	$48.92
Laborer	$39.16
Operator - Crane / Equipment	$61.80
Operator - Forklift	$57.97
Millwright	$62.57
Pipefitter / Pipelayer	$49.64
Welder	$69.19
Plumber	$49.24
HVAC Installer	$47.09

Rates include wages plus burden, cell phone, travel, safety incentive, and training. Overtime hours to be billed at 1.43 times the straight time rate.

City of Chandler Water Reclamation Facility Improvements Project

Project No. WW1901.401

January 8, 2021 Rev. February 16, 2021

McCarthy Staff Unit Rates

	Hourly
Project Director	$146.21
Senior Project Manager	$137.90
Project Manager	$129.20
Assistant Project Manager	$108.87
Project Safety Manager	$123.83
General Superintendent	$137.53
Project Superintendent	$126.76
Area Superintendent	$124.88
Assistant Project Superintendent	$108.97
Project Engineer	$91.83
Project Administrator	$65.00

Rates include salary and burden, vehicle, fuel, oil, parts, cell phone, computer, software & maintenance, subsistence, travel, training and relocation. Sick and Vacation are included in the rates; holidays have been included as cost of the work.

EXHIBIT E

Chandler • Arizona

[TITLE]

Project No. [####]

SUBCONTRACTOR'S LIST FORM

If Bidder intends to subcontract any portion of this contract, the bidder must submit the name, address, and contractor's license number (if applicable) of each subcontractor, including the work component of such subcontracting. Include the form with the bid submittal documents. Bidder may make multiple copies of this form as needed.

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

Company Name:	
Contact Name:	
Contact Email:	
Contact Phone:	
Work Component:	
Percentage of Total Work Performed:	

CHANDLER arizona
Community of Innovation

City Council Memorandum **Public Works & Utilities** **Memo No.** CP21-083

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
Andrew Goh, Capital Projects Manager

From: Sandra Story, Engineering Project Manager

Subject: Professional Services Agreement No. WW1901.451, with Wilson Engineers, LLC, for the Water Reclamation Facility Improvements Construction Management Services

---

Proposed Motion:

Move City Council award Professional Services Agreement No. WW1901.451 to Wilson Engineers, LLC, for the Water Reclamation Facility Improvements Construction Management Services, in an amount not to exceed $126,410.

Background/Discussion:

The City provides wastewater services to over 260,000 residents. This number is projected to increase to 300,000 by the year 2040. Wastewater is delivered to reclamation facilities where it is treated to produce A+ quality effluent for delivery to the City's reclaimed water system. The Ocotillo Water Reclamation Facility, located at 3333 S. Old Price Road, was originally built in 1985. The Airport Water Reclamation Facility, located at 905 E. Queen Creek Road, was originally built in 1998. Both facilities are in need of rehabilitation due to aging infrastructure. This is the first of subsequent Guaranteed Maximum Price (GMP) scopes of work for the overall project. Major components of the first GMP scope of work include the replacement of sand media filters with updated cloth media technologies, rehabilitation of secondary clarifiers, replacement of large diameter blower piping, and related instrumentation and electrical upgrades.

The project scope of work consists of pre-construction assistance, contractor oversight, construction administration, construction inspection, schedule review, review of progress payments, and response to shop drawings and submittals. The contract completion time is 300 calendar days following Notice to Proceed.

A related Construction Manager at Risk Contract with McCarthy Building Companies, Inc., for the Water Reclamation Facility Improvements, is also scheduled for this City Council meeting.

Evaluation:

The selection process was conducted in accordance with City policy and procedure and State law. Staff recommends approval of this agreement with Wilson Engineers, LLC, based on qualifications, relevant firm experience, team experience, project understanding, and project approach.

Fiscal Impact

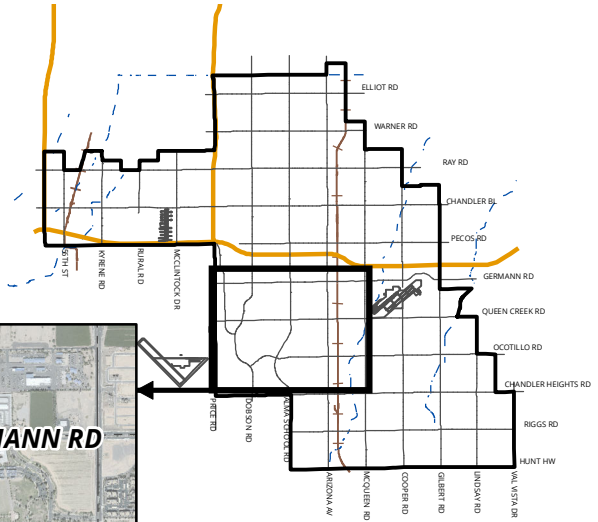
Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
611.3910.6814.6WW621	Wastewater Bond Fund	Water Reclamation Facillity Impr	$126,410.00	Y

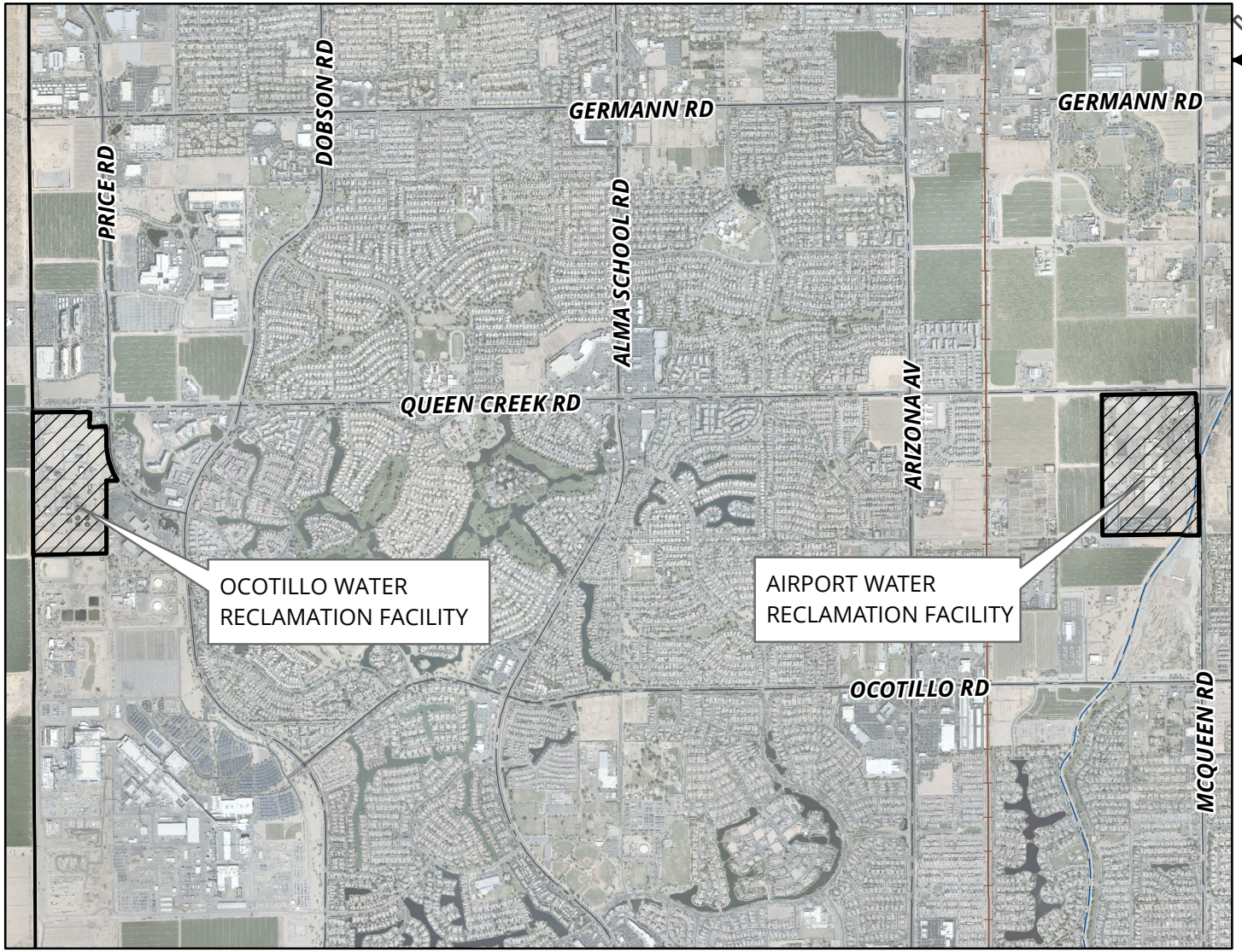
Attachments

Location Map
Agreement

CHANDLER
arizona

WATER RECLAMATION FACILITY IMPROVEMENTS PROJECT NO. WW1901.451





MEMO NO. CP21-083

PROJECT SITE

NTS

ChanGIS

F:\ENGINEER\GENSERV_ArcMap_Shared\Map Requests\Capital Projects\CP21-083 WATER RECLAMATION FACILITY IMPROVEMENTS\CP21-083.mxd 1/22/2021 MARICELAH

PROFESSIONAL SERVICES AGREEMENT
Construction Management Services
WATER RECLAMATION FACILITY IMPROVEMENTS

Project No. WW1901.451

Council Date: February 25, 2021 Item No.

THIS AGREEMENT ("Agreement") is made and entered into on the _____ day of_____, 2021 ("Effective Date"), by and between City of Chandler, an Arizona municipal corporation, ("City"), and **Wilson Engineers, Inc.**, and Arizona limited liability company, ("Consultant") (City and Consultant may individually be referred to as "Party" and collectively referred to as "Parties").

RECITALS

A. City proposes to engage Consultant to provide Select Agreement Type for **WATER RECLAMATION FACILITY IMPROVEMENTS** project as more fully described in **Exhibit "A"**, which is attached to and made a part of this Agreement by this reference.

B. Consultant is ready, willing, and able to provide the services described in **Exhibit "A"** for the compensation and fees set forth and as described in **Exhibit "B"**, which is attached to and made a part of this Agreement by this reference.

C. City desires to contract with Consultant to provide these services under the terms and conditions set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual promises contained in this Agreement, City and Consultant agree as follows:

SECTION I--CONSULTANT'S SERVICES

Consultant must perform the services described in **Exhibit "A"** to City's satisfaction within the terms and conditions of this Agreement and within the care and skill that a person who provides similar services in Chandler, Arizona exercises under similar conditions. All work or services furnished by Consultant under this Agreement must be performed in a skilled and workmanlike manner. All fixtures, furnishings, and equipment furnished by Consultant as part of the work or services under this Agreement must be new, or the latest model, and of the most suitable grade and quality for the intended purpose of the work or service.

SECTION II--PERIOD OF SERVICE

Consultant must perform the services described in **Exhibit "A"** for the term of this Agreement. Unless amended in writing by the Parties, the Agreement term expires **300** calendar days after the Notice to Proceed (NTP) Date.

SECTION III--PAYMENT OF COMPENSATION AND FEES

Unless amended in writing by the Parties, Consultant's compensation and fees as more fully described in **Exhibit "B"** for performance of the services approved and accepted by City under this Agreement must not exceed **$126,410** for the full term of the Agreement. Consultant may not increase any compensation or fees under this Agreement without the City's prior written consent. Consultant must submit monthly requests for payment of services approved and accepted during the previous billing period and must include, as applicable, detailed invoices and receipts, a narrative description of the tasks accomplished during the billing period, a list of any deliverables submitted, and any subconsultant's or supplier's actual requests for payment plus similar narrative and listing of their work. Consultant must submit an Application and Certification for Payment Sheet with the monthly request for payment to: CapitalProjects.Payables@chandleraz.gov. Payment for those services negotiated as a lump sum will be made in accordance with the percentage of the work completed during the preceding billing period. Services negotiated as a not-to-exceed fee will be paid in accordance with the work effort expended on the service during the preceding month. All requests for payment must be submitted to City for review and approval. City will make payment for approved and accepted services within 30 calendar days of City's receipt of the request for payment. Consultant bears all responsibility and liability for any and all tax obligations that result from Consultant's performance under this Agreement.

SECTION IV--CITY'S OBLIGATIONS

As part of Consultant's services under this Agreement, City will provide furnished items, services, or obligations as detailed in **Exhibit "D"**.

SECTION V--GENERAL CONDITIONS

5.1 Notices. Unless otherwise provided herein, demands under this Agreement must be in writing and will be deemed to have been duly given and received either (a) on the date of service if personally served on the party to whom notice is to be given, or (b) on the third day after the date of the postmark of deposit by first class United States mail, registered or certified, postage prepaid and properly addressed as follows:

To City:	City of Chandler Public Works & Utilities Department Attn: CIP City Engineer P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008

With a Copy to:	Project Manager City of Chandler Public Works & Utilities Department P.O. Box 4008, Mail Stop 407 Chandler, AZ 85244-4008
To Consultant:	Mr. Uday Gandhe Wilson Engineers, Inc. 1620 W. Fountainhead Pkwy., Ste. 501 Tempe, AZ 85282

5.2 Records/Audit. Records of Consultant's direct personnel payroll, reimbursable expenses pertaining to this Agreement and records of accounts between City and Consultant must be kept on the basis of generally accepted accounting principles and must be made available to City and its auditors for up to three years following City's final acceptance of the services under this Agreement. City, its authorized representative, or any federal agency, reserves the right to audit Consultant's records to verify the accuracy and appropriateness of all cost and pricing data, including data used to negotiate this Agreement and any amendments. City reserves the right to decrease the total amount of Agreement price or payments made under this Agreement or request reimbursement from Consultant following final contract payment on this Agreement if, upon audit of Consultant's records, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data. Consultant will include a similar provision in all of its contracts with subconsultants who provide services under the Agreement to ensure that City, its authorized representative, or the appropriate federal agency, has access to the subconsultants' records to verify the accuracy of all cost and pricing data. City reserves the right to decrease Contract price or payments made on this Agreement or request reimbursement from Consultant following final payment on this Agreement if the above provision is not included in subconsultant agreements, and one or more subconsultants refuse to allow City to audit their records to verify the accuracy and appropriateness of all cost and pricing data. If, following an audit of this Agreement, the audit discloses Consultant has provided false, misleading, or inaccurate cost and pricing data, and the cost discrepancies exceed 1% of the total Agreement billings, Consultant will be liable for reimbursement of the reasonable, actual cost of the audit.

5.3 Alteration in Character of Work. Whenever an alteration in the character of work results in a substantial change in this Agreement, thereby materially increasing or decreasing the scope of services, cost of performance, or Project schedule, the work will be performed as directed by City. However, before any modified work is started, a written amendment must be approved and executed by City and Consultant. Such amendment must not be effective until approved by City. Additions to, modifications, or deletions from this Agreement as provided herein may be made, and the compensation to be paid to Consultant may accordingly be adjusted by mutual agreement of the Parties. It is distinctly understood and agreed that no claim for extra services or materials furnished by Consultant will be allowed by City except as provided herein, nor must Consultant do any work or furnish any materials not covered by this Agreement unless such work is first authorized in writing. Any such work or materials furnished by Consultant without prior written authorization will be at Consultant's own risk, cost, and expense, and Consultant hereby agrees that without

written authorization Consultant will make no claim for compensation for such work or materials furnished.

5.4 Termination. City and Consultant hereby agree to the full performance of the covenants contained herein, except that City reserves the right, at its discretion and without cause, to terminate or abandon any service provided for in this Agreement, or abandon any portion of the Project for which services have been performed by Consultant. In the event City abandons or suspends the services, or any part of the services as provided in this Agreement, City will notify Consultant in writing and immediately after receiving such notice, Consultant must discontinue advancing the work specified under this Agreement. Upon such termination, abandonment, or suspension, Consultant must deliver to City all drawings, plans, specifications, special provisions, estimates and other work entirely or partially completed, together with all unused materials supplied by City. Consultant must appraise the work Consultant has completed and submit Consultant's appraisal to City for evaluation. City may inspect Consultant's work to appraise the work completed. Consultant will receive compensation in full for services performed to the date of such termination. The fee will be paid in accordance with Section Ill of this Agreement, and as mutually agreed upon by Consultant and City. If there is no mutual agreement on payment, the final determination will be made in accordance with the "Disputes" provision in this Agreement. However, in no event may the fee exceed the fee set forth in Section Ill of this Agreement nor as amended in accordance with Section "Alteration in Character of Work." City will make the final payment within 60 days after Consultant has delivered the last of the partially completed items and the Parties agree on the final fee. If City is found to have improperly terminated the Agreement for cause or default, the termination will be converted to a termination for convenience in accordance with the provisions of this Agreement.

5.5 Indemnification. To the extent permitted by law, the Consultant ("lndemnitor") must indemnify, save and hold harmless City and its officers, officials, agents and employees ("lndemnitee") from any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees and costs of claim processing, investigation and litigation) ("Claims") caused or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Consultant or any of its owners, officers, directors, agents, employees, or subconsultants in connection with this Agreement. This indemnity includes any claim or amount arising out of or recovered under workers' compensation law or on account of the failure of Consultant to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Consultant must indemnify lndemnitee from and against any and all Claims, except those arising solely from lndemnitee's own negligent or willful acts or omissions. Consultant is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the award of this Agreement, Consultant agrees to waive all rights of subrogation against lndemnitee for losses arising from or related to this Agreement. The obligations of Consultant under this provision survive the termination or expiration of this Agreement.

5.6 Insurance Requirements. Consultant must procure insurance under the terms and conditions and for the amounts of coverage set forth in **Exhibit "C"** against claims that may arise from or relate to performance of the work under this Agreement by Consultant and its

agents, representatives, employees, and subconsultants. Consultant and any subconsultant must maintain this insurance until all of their obligations have been discharged, including any warranty periods under this Agreement. These insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. City in no way warrants that the minimum limits stated in **Exhibit "C"** are sufficient to protect Consultant from liabilities that might arise out of the performance of the work under this Agreement by Consultant, Consultant's agents, representatives, employees, or subconsultants. Consultant is free to purchase such additional insurance as may be determined necessary.

5.7 Cooperation and Further Documentation. Consultant agrees to provide City such other duly executed documents as may be reasonably requested by City to implement the intent of this Agreement.

5.8 Successors and Assigns. City and Consultant each bind itself, its partners, successors, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants of this Agreement. Neither City nor Consultant may assign, sublet, or transfer its interest in this Agreement without the written consent of the other party. In no event may any contractual relation be created between any third party and City.

5.9 Disputes. In any dispute arising out of an interpretation of this Agreement or the duties required not disposed of by agreement between Consultant and City, the final determination at the administrative level will be made by City Engineer.

5.10 Completeness and Accuracy of Consultant's Work. Consultant must be responsible for the completeness and accuracy of Consultant's services, data, and other work prepared or compiled under Consultant's obligation under this Agreement and must correct, at Consultant's expense, all willful or negligent errors, omissions, or acts that may be discovered. Correction of errors disclosed and determined to exist during any construction of the project on architectural or engineering drawings and specifications must be accomplished by Consultant. The cost of the design necessary to correct those errors attributable to Consultant and any damage incurred by City as a result of additional construction costs caused by such engineering or architectural errors will be chargeable to Consultant and will not be considered a cost of the Work. The fact that City has accepted or approved Consultant's work will in no way relieve Consultant of any of Consultant's responsibilities.

5.11 Reporting. Written monthly reports, along with updated work schedules, will be made by Consultant in the format prescribed by City. These reports will be delivered to City per schedule. When requested by City, Consultant will attend Council meetings and provide finished documents including correspondence for Council action, supporting charts, graphs, drawings and colored slides of same.

5.12 Withholding Payment. City reserves the right to withhold funds from Consultant's payments up to the amount equal to the claims City may have against Consultant until such time that a settlement on those claims has been reached.

5.13 City's Right of Cancellation. The Parties acknowledge that this Agreement is subject to cancellation by City under the provisions of Section 38-511, Arizona Revised Statutes (A.R.S.).

5.14 Independent Consultant. For this Agreement Consultant constitutes an independent contractor. Any provisions in this Agreement that may appear to give City the right to direct Consultant as to the details of accomplishing the work or to exercise a measure of control over the work means that Consultant must follow the wishes of City as to the results of the work only. These results must comply with all applicable laws and ordinances.

5.15 Project Staffing. Prior to the start of any work under this Agreement, Consultant must submit to City detailed resumes of key personnel that will be involved in performing services prescribed in the Agreement. City hereby acknowledges its acceptance of such personnel to perform services under this Agreement. At any time hereafter that Consultant desires to change key personnel while performing under the Agreement, Consultant must submit the qualifications of the new personnel to City for prior approval. Key personnel include, but are not limited to, principals-in-charge, project manager, and project Consultant. Consultant will maintain an adequate and competent staff of qualified persons, as may be determined by City, throughout the performance of this Agreement to ensure acceptable and timely completion of the Scope of Services. If City objects, with reasonable cause, to any of Consultant's staff, Consultant must take prompt corrective action acceptable to City and, if required, remove such personnel from the Project and replace with new personnel agreed to by City.

5.16 Consultants or Subconsultants. Prior to beginning the work, Consultant must furnish City for approval the names of consultants or subconsultants to be used under this Agreement. Any subsequent changes are subject to City's written prior approval.

5.17 Force Majeure. If either party is delayed or prevented from the performance of any act required under this Agreement by reason of acts of God or other cause beyond the control and without fault of the Party (financial inability excepted), performance of that act may be excused, but only for the period of the delay, if the Party provides written notice to the other Party within ten days of such act. The time for performance of the act may be extended for a period equivalent to the period of delay from the date written notice is received by the other Party.

5.18 Compliance with Federal Laws. Consultant understands and acknowledges the applicability of the Americans with Disabilities Act, the Immigration Reform and Control Act of 1986 and the Drug Free Workplace Act of 1989 to it. Consultant agrees to comply with these laws in performing this Agreement and to permit City to verify such compliance.

5.19 No Israel Boycott. By entering into this Agreement, Consultant certifies that Consultant is not currently engaged in, and agrees for the duration of the Agreement, not to engage in a boycott of Israel as defined by state statute.

5.20 Legal Worker Requirements. A.R.S. § 41-4401 prohibits City from awarding a contract to any consultant who fails, or whose subconsultants fail, to comply with A.R.S. § 23-214(A). Therefore, Consultant agrees Consultant and each subconsultant it uses warrants their

compliance with all federal immigration laws and regulations that relate to their employees and their compliance with § 23-214, subsection A. A breach of this warranty will be deemed a material breach of the Agreement and may be subject to penalties up to and including termination of the Agreement. City retains the legal right to inspect the papers of any Consultant's or subconsultant's employee who provides services under this Agreement to ensure that Consultant and subconsultants comply with the warranty under this provision.

5.21 Lawful Presence Requirement. A.R.S. §§ 1-501 and 1-502 prohibit City from awarding a contract to any natural person who cannot establish that such person is lawfully present in the United States. To establish lawful presence, a person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of contract award. This requirement does not apply to business organizations such as corporations, partnerships, or limited liability companies.

5.22 Covenant Against Contingent Fees. Consultant warrants that no person has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, and that no member of the Chandler City Council, or any City employee has any interest, financially, or otherwise, in Consultant's firm. For breach or violation of this warrant, City may annul this Agreement without liability or, at its discretion, to deduct from the Agreement price or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

5.23 Non-Waiver Provision. The failure of either Party to enforce any of the provisions of this Agreement or to require performance of the other Party of any of the provisions hereof must not be construed to be a waiver of such provisions, nor must it affect the validity of this Agreement or any part thereof, or the right of either Party to thereafter enforce each and every provision.

5.24 Disclosure of Information Adverse to City's Interests. To evaluate and avoid potential conflicts of interest, Consultant must provide written notice to City, as set forth in this Section, of any work or services performed by Consultant for third parties that may involve or be associated with any real property or personal property owned or leased by City. Such notice must be given 7 business days prior to commencement of the services by Consultant for a third party, or 7 business days prior to an adverse action as defined below. Written notice and disclosure must be sent in accordance with Section 6.7 above. An adverse action under this Agreement includes, but is not limited to: (a) using data as defined in the Agreement acquired in connection with this Agreement to assist a third party in pursuing administrative or judicial action against City; or (b) testifying or providing evidence on behalf of any person in connection with an administrative or judicial action against City; or (c) using data to produce income for Consultant or its employees independently of performing the services under this Agreement, without the prior written consent of City. Consultant represents that except for those persons, entities, and projects identified to City, the services performed by Consultant under this Agreement are not expected to create an interest with any person, entity, or third party project that is or may be adverse to City's interests. Consultant's failure to provide a written notice and disclosure of the information

as set forth in this Section constitute a material breach of this Agreement.

5.25 Data Confidentiality and Data Security. As used in the Agreement, "data" means all information, whether written or verbal, including plans, photographs, studies, investigations, audits, analyses, samples, reports, calculations, internal memos, meeting minutes, data field notes, work product, proposals, correspondence and any other similar documents or information prepared by, obtained by, or transmitted to Consultant or its subconsultants in the performance of this Agreement. The Parties agree that all data, regardless of form, including originals, images, and reproductions, prepared by, obtained by, or transmitted to Consultant or its subconsultants in connection with Consultant's or its subconsultant's performance of this Agreement is confidential and proprietary information belonging to City. Except as specifically provided in this Agreement, Consultant or its subconsultants must not divulge data to any third party without City's prior written consent. Consultant or its subconsultants must not use the data for any purposes except to perform the services required under this Agreement. These prohibitions do not apply to the following data provided to Consultant or its subconsultants have first given the required notice to City: (a) data which was known to Consultant or its subconsultants prior to its performance under this Consultant or its subconsultants by a third party, who to the best of Consultant's or its subconsultants' knowledge and belief, had the legal right to make such disclosure and Consultant or its subconsultants are not otherwise required to hold such data in confidence; or (c) data which is required to be disclosed by virtue of law, regulation, or court order, to which Consultant or its subconsultants are subject. In the event Consultant or its subconsultants are required or requested to disclose data to a third party, or any other information to which Consultant or its subconsultants became privy as a result of any other contract with City, Consultant must first notify City as set forth in this Section of the request or demand for the data. Consultant or its subconsultants must give City sufficient facts so that City can be given an opportunity to first give its consent or take such action that City may deem appropriate to protect such data or other information from disclosure. All data must continue to be subject to the confidentiality agreements of this Agreement. Consultant or its subconsultants assume all liability to maintain the confidentiality of the data in its possession and agrees to compensate City if any of the provisions of this Section are violated by Consultant, its employees, agents or subconsultants. Solely for the purposes of seeking injunctive relief, it is agreed that a breach of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. Consultant agrees that the requirements of this Section must be incorporated into all subagreements entered into by Consultant. A violation of this Section may result in immediate termination of this Agreement without notice.

5.26 Personal Identifying Information-Data Security. Personal identifying information, financial account information, or restricted City information, whether electronic format or hard copy, must be secured and protected at all times by Consultant or its subconsultants. At a minimum, Consultant or its subconsultants must encrypt or password-protect electronic files. This includes data saved to laptop computers, computerized devices, or removable storage devices. When personal identifying information, financial account information, or restricted City information, regardless of its format, is no longer necessary, the information must be redacted or destroyed through appropriate and secure methods that ensure the information cannot be viewed, accessed, or reconstructed. In the event that

data collected or obtained by Consultant or its subconsultants in connection with this Agreement is believed to have been compromised, Consultant or its subconsultants must immediately notify City contact. Consultant agrees to reimburse City for any costs incurred by City to investigate potential breaches of this data and, where applicable, the cost of notifying individuals who may be impacted by the breach. Consultant agrees that the requirements of this Section must be incorporated into all subcontracts entered into by Consultant. It is further agreed that a violation of this Section must be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Agreement without notice. The obligations of Consultant or its subconsultants under this Section must survive the termination of this Agreement.

5.27 Jurisdiction and Venue. This Agreement is made under, and must be construed in accordance with and governed by the laws of the State of Arizona without regard to the conflicts or choice of law provisions thereof. Any action to enforce any provision of this Agreement or to obtain any remedy with respect hereto must be brought in the courts located in Maricopa County, Arizona, and for this purpose, each Party hereby expressly and irrevocably consents to the jurisdiction and venue of such court.

5.28 Survival. All warranties, representations, and indemnifications by Consultant must survive the completion or termination of this Agreement.

5.29 Modification. Except as expressly provided herein to the contrary, no supplement, modification, or amendment of any term of this Agreement will be deemed binding or effective unless in writing and signed by the Parties.

5.30 Severability. If any provision of this Agreement or the application to any person or circumstance may be invalid, illegal or unenforceable to any extent, the remainder of this Agreement and the application will not be affected and will be enforceable to the fullest extent permitted by law.

5.31 Integration. This Agreement contains the full agreement of the Parties. Any prior or contemporaneous written or oral agreement between the Parties regarding the subject matter is merged and superseded.

5.32 Time is of the Essence. Time of each of the terms, covenants, and conditions of this Agreement is hereby expressly made of the essence.

5.33 Date of Performance. If the date of performance of any obligation or the last day of any time period provided for should fall on a Saturday, Sunday, or holiday for City, the obligation will be due and owing, and the time period will expire, on the first day after which is not a Saturday, Sunday or legal City holiday. Except as may otherwise be set forth in this Agreement, any performance provided for herein will be timely made if completed no later than 5:00 p.m. (Chandler time) on the day of performance.

5.34 Third Party Beneficiary. Nothing under this Agreement will be construed to give any rights or benefits in the Agreement to anyone other than City and Consultant, and all duties and responsibilities undertaken pursuant to this Agreement will be for the sole and

exclusive benefit of City and Consultant and not for the benefit of any other party.

5.35 Conflict in Language. All work performed must conform to all applicable City of Chandler codes, ordinances, and requirements as outlined in this Agreement. If there is a conflict in interpretation between provisions in this Agreement and those in **Exhibit "A"**, the provisions in this Agreement prevail.

5.36 Document/Information Release. Documents and materials released to Consultant, which are identified by City as sensitive and confidential, are City's property. The document/material must be issued by and returned to City upon completion of the services under this Agreement. Consultant secondary distribution, disclosure, copying, or duplication in any manner is prohibited without City's prior written approval. The document/material must be kept secure at all times. This directive applies to all City documents, whether in photographic, printed, or electronic data format.

5.37 Exhibits. The following exhibits are made a part of this Agreement and are incorporated by reference:

Exhibit A - Scope of Services / Schedule
Exhibit B - Compensation and Fees
Exhibit C - Insurance Requirements
Exhibit D - Special Conditions
Exhibit E – Federal Requirements (if applicable)

5.38 Special Conditions. As part of the services Consultant provides under this Agreement, Consultant agrees to comply with and fully perform the special terms and conditions set forth in **Exhibit "D"**, which is attached to and made a part of this Agreement.

5.39 Non-Discrimination and Anti-Harassment Laws. Consultant must comply with all applicable City, state, and federal non-discrimination and anti-harassment laws, rules, and regulations.

5.40 Licenses and Permits. Beginning with the Effective Date and for the full term of this Agreement, Consultant must maintain all applicable City, state, and federal licenses and permits required to fully perform Consultant's services under this Agreement.

5.41 Warranties. Consultant must furnish a one-year warranty on all work and services performed under this Agreement. Consultant must furnish, or cause to be furnished, a two-year warranty on all fixtures, furnishings, and equipment furnished by Consultant, subconsultants or suppliers under this Agreement. Any defects in design, workmanship, or materials that do not comply with this Agreement must be corrected by Consultant (including, but not limited to, all parts and labor) at Consultant's sole cost and expense. All written warranties and redlines for as-built conditions must be delivered to City on or before City's final acceptance of Consultant's services under this Agreement.

5.42 Cooperative Purchasing Agreement (S.A.V.E. – Strategic Alliance for Volume Expenditures). In addition to City of Chandler and with the approval of Consultant, this

Agreement may be extended for use by other municipalities, school districts, and government agencies of the State. Any such usage by other entities must be in accordance with the ordinance, charter, or procurement rules and regulations of the respective political entity.

5.43 Budget Approval into Next Fiscal Year. This Agreement will commence on the Effective Date and continue in full force and effect until it is terminated or expires in accordance with the provisions of this Agreement. The Parties recognize that the continuation of this Agreement after the close of the City's fiscal year, which ends on June 30 of each year, is subject to the City Council's approval of a budget that includes an appropriation for this item as an expenditure. The City does not represent that this budget item will be actually adopted. This determination is solely made by the City Council.

SIGNATURE PAGE TO FOLLOW

This Agreement will be in full force and effect only when it has been approved and executed by the duly authorized City officials.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

"CITY"
CITY OF CHANDLER

_____
MAYOR

Recommended By:

_____
Andrew Goh, P.E.
CIP City Engineer

APPROVED AS TO FORM:

_____
City Attorney

ATTEST:

_____
City Clerk Seal

"CONSULTANT"
Wilson Engineer, LLC

01/26/2021
Signature Date

Uday Kumar Gandhe
Print Name

Principal
Title

Uday.gandhe@wilson-engineers.com
Email

EXHIBIT "A"
SCOPE OF SERVICES/SCHEDULE

EXHIBIT "A"

CONSTRUCTION MANAGEMENT
SCOPE OF SERVICES
WRF IMPROVEMENTS PROJECT

GENERAL DESCRIPTION

The City of Chandler has determined to complete improvements at both the Airport Water Reclamation Facility (AWRF) and the Ocotillo Water Reclamation Facility (OWRF). The design of the project is currently underway and is in final stages. In order to complete construction of certain project elements by early 2021, the City has determined to procure (as GMP 1 of this project) some of the long lead items (filter assemblies for both AWRF and OWRF, gates and actuators etc) that would facilitate timely construction work. The early procurement items will allow the contractor to purchase equipment in time for installation. This Construction Management scope of work will include effort by Wilson Engineers (Consultant) and will involve Project Administration, Engineering and Resident Services during this phase (GMP 1) of the Project.

PROJECT TASKS

1. PRE-CONSTRUCTION ASSISTANCE

A. Task 1.1 Preconstruction Assistance

i. Consultant will conduct a pre-construction conference. At the conference, the Consultant will identify the services to be provided by Consultant and discuss coordination procedures. Consultant will prepare an agenda for this meeting and will prepare and distribute the meeting minutes.

2. CONSTRUCTION MANAGEMENT

A. Task 2.1 Weekly Construction Meetings

i. Consultant must conduct weekly construction meetings. Each meeting includes agenda and minutes; Request for Information (RFI); Shop Drawing; Request for Information (RFI); Field Directive (FD); Material Certification; and Allowance Logs. Consultant assumes 10 weekly meetings will be held.

B. Task 2.2 CPM Schedule

i. Consultant's opinions concerning various scheduling documents produced or used by the Contractor are for information and not controlling on the Contractor. It is Contractor's responsibility to continue to exercise it independent judgement concerning means, methods and sequences of construction it employs. The Contractor remains solely responsible for meeting contract time(s) identified in the construction documents.

ii. Review Progress Schedule: Consultant will review and critique the Contractor's progress schedule in accordance with the construction documents, Consultant will examine work sequence, durations, interim milestones, and other appropriate scheduling features in accordance the requirements of the construction documents. Consultant will prepare a summary of the baseline schedule review comments and will meet and discuss the schedule comments with the Contractor and the City. Consultant will provide recommendations for acceptance.

iii. Review Progress schedule updates: Consultant will review the Contractor's progress schedule updates to the construction schedule in accordance with the construction documents. Consultant will perform a review of progress accomplished during the period and compare to planned schedule and discuss

significant discrepancies with the Contractor. Consultant and Contractor will establish, based on the data, the percent of Project completion. Consultant will meet with Contractor on monthly basis to review and update the schedule data. Based upon the schedule update, Consultant will recommend processing progress payments. The primary performance of the task will be performed under Task 930 Consultant will identify CPM tasks behind schedule that may affect critical path items, project substantial and final completion dates and initiate correspondence to City regarding those tasks. Consultant assumes two reviews of updated CPM schedule.

C. Task 2.3 Requests for Information (RFI's)

i. Consultant will issue necessary interpretations and clarifications of the construction documents; have authority, as City's representative, to require special inspection or testing of the work; act as initial interpreter of the requirements of the construction documents and judge the acceptability of the work thereunder, and make decisions on all claims of City and Contractor(s) relating to the acceptability of the work or the interpretation of the requirements of the construction documents pertaining to the execution and progress of the work. Consultant will render interpretations or decisions in good faith and in accordance with the requirements of the construction documents.

ii. Consultant will respond to the City's representative and/or Contractor to clarify and/or interpret technical or design-related questions. Consultant will respond to issues raised during construction regarding interpretation and clarification of the contractual administrative and technical requirements of the construction documents. Consultant will serve as the City's advisor in resolution of these issues.

iii. Consultant will prepare and maintain a submittal log of all RFI's. Consultant assumes a maximum of 20 RFI responses.

D. Task 2.4 Shop Drawing Submittals

i. CONSULTANT will receive, review, evaluate, and distribute (or take other appropriate action in respect of) shop drawings, samples, test results, and other data which Contractor is required to submit. Consultant review shall be for conformance with the design concept of the Project and compliance with the information given in the construction documents. Such review or other action shall not extend to means, methods, sequences, techniques, or procedures of construction selected by Contractor(s), or to safety precautions and programs associated thereto. Consultant will receive and review (for general contents as required by the construction documents) maintenance and operating schedules and instructions, operation and maintenance manuals, guarantees, and certificates of inspection, which are to be assembled by Contractor(s) in accordance with the construction documents.

ii. CONSULTANT will maintain a submittal log showing dates of submittal, transmittal action to other sub-consultants, dates of return, and review action. Copies of the log shall be furnished to the CITY and the Contractor weekly. Consultant will promptly and in accordance with Project schedule requirements, review and approve, reject or take other appropriate action on the Contractor's request for substitutions. Consultant will not approve any proposed substitution unless such substitution conforms to the Project design concept and the construction documents including the contract price.

iii. Task effort is based on receiving an estimated total of 20 shop drawing submittals. Submittal review efforts are based upon a maximum of two (2) reviews per submittal and that no more than fifty percent (50%) of the total number of first submittals will require two (2) reviews.

E. Task 2.5 Requests for Proposal (RFP)

i. Consultant must prepare Requests for Proposal (RFP) documents detailing requested additional work tasks; review and evaluate Contractor RFP responses (cost deviations) with approval recommendations; and prepare and maintain a submittal log list of all RFP's. Consultant assumes two (2) RFPs.

F. Task 2.6 Field Directives (FD's)

i. Consultant, without the CITY's prior approval, may authorize or direct minor changes in the Work which are consistent with the intent of the construction contract documents and which do not involve a change in Project cost, time for construction, Project scope, aesthetics, or approved design elements. Any such minor changes shall be implemented by written field order. Except as provided in this paragraph, Consultant shall not have authority to direct or authorize changes in the Work without the City's prior written approval; however, Consultant shall provide a copy of any written field order to the City.

ii. Consultant will prepare and submit change order requests explaining the merits for the change and a recommendation for the City's approval and acceptance.

iii. Consultant will negotiate an agreement with the Contractor as to scope of work and cost, time or both associated with the change in Work. The change order shall include a written justification for the cost of the Work. Consultant will administer and manage minor changes, change order requests, and change orders on behalf of the City. Change orders shall be prepared on a standard form provided by the City. Should a change order request be accepted by the City in the absence of an agreement with the Contractor as to cost, time, or both, Consultant will:

A) receive and maintain all documentation pertaining to the change order request required of the Contractor;

B) examine such documentation on the CITY's behalf;

C) take such other action as may be reasonably necessary or as the CITY may request; and

D) make a recommendation to the CITY concerning any appropriate adjustment in the construction cost and/or time, and prepare a change order for Contractor's acceptance and City approval.

iv. Changes and substitutions shall be limited to the scope of the Project as defined by the construction documents or additional work as may be requested by the City. Consultant will promptly consult with and advise the City concerning, and shall administer and manage, all change order requests and change orders.

v. Consultant will prepare, when requested by the City, required drawings, specifications and other supporting data regarding minor changes, change order requests, and change orders. Consultant must prepare Field Directive (FD) documents detailing requested additional work tasks; review and evaluate Contractor FD responses with approval recommendations; and prepare and maintain a submittal log list of all FD's. Consultant assumes two (2) FD's.

G. Task 2.7 Contractor Payment Applications

i. Consultant will review, prepare comments, and reach agreement with the Contractor on the progress represented in the Contractor's schedule of values. The monthly schedule update, schedule of values, in combination with Consultant's field inspections, and the progress schedule shall be used by Consultant to determine the appropriateness of the Contractor's request for payment.

ii. Consultant, as an experienced and qualified professional, and on review of applications for payment and the accompanying data and schedules, determine the amounts owed to Contractor and recommend in writing, payments to Contractor in such amounts; such recommendations of payment will constitute a representation to City, based on such inspections and review, that;

A) the work has progressed to the point indicated;

B) to the best of Consultant's knowledge, information and belief, the quality of such work is in accordance with the construction documents (subject to an evaluation of such work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the construction documents, and to any qualifications stated in the recommendation); and

C) payment of the amount recommended is due and owed to the Contractor.

iii. For unit price work, Consultant's recommendations for payment will be a determination of completed quantities of such work.

iv. Consultant assumes a maximum of 6 payment applications, with 2 reviews each.

H. Task 2.8 Public Outreach

i. Not Included

3. CONSTRUCTION INSPECTION

A. Task 3.1 Inspection Services

i. The Resident Project Representative (RPR) will maintain a presence at the Project site with sufficient frequency to be knowledgeable about the progress and quality of the work to:

A) Conduct on-site inspections of the work in progress to assist Consultant in determining if the work is proceeding in accordance with the construction documents and that completed work conforms to the construction documents.

B) Report to Consultant whenever it is believed that any work is unsatisfactory, faulty, or defective, or does not conform to the construction documents, or does not meet the requirements of inspections, tests or approval required to be made, or has been damaged prior to final payment; and advise Consultant when it is believed work should be corrected or rejected or should be uncovered for inspection, or requires special testing, inspection or approval.

C) Verify that tests, equipment, and systems start-up and operating and maintenance instructions are conducted as required by the construction documents and in presence of the required personnel, and that Contractor maintains adequate records thereof; inspect, record and report to Consultant appropriate details relative to the test procedures and start-ups. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections, and report to CONSULTANT

ii. The RPR will prepare daily inspection reports documenting Contractor construction activities and progress during field inspection visits; and perform intermittent erosion control inspections. Consultant assumes one inspector full time 40 hours per week for two months.

B. Task 3.2 Landscape / Irrigation Inspection Services

i. Not Included

C. Task 3.3 Project Closeout

i. Not Included

4. UTILITY COORDINATION

A. Task 4.1 Utility Coordination

i. Not Included

5. MATERIALS TESTING

A. Task 5.1 Quality Control (QC) Test Program

i. Not Included

B. Task 5.2 Quality Assurance (QA) Test Program

i. Not Included

6. RECORD DRAWINGS

A. **Task 6.1 Record Drawings**

i. Not Included

ASSUMPTION, CLARIFICATIONS, AND EXCLUSIONS

1. Application fees for City reviews and permits will be paid by CITY.
2. The Owner's Allowance will only be utilized with prior written approval from the City representative.
3. The Direct Expense Allowance will be used for normal reimbursable expenses on the project. Items must be billed at cost and backup must be provided with pay applications.

EXHIBIT "B"
COMPENSATION AND FEES

EXHIBIT "B"
CONSTRUCTION MANAGEMENT
SCOPE OF SERVICES
FEE SCHEDULE

Task	Description	Cost
1	**PRE-CONSTRUCTION ASSISTANCE**	
1.1	Pre-Construction Assistance	$ 3,730.00
	SUBTOTAL TASK 1:	**$ 3,730.00**
2	**CONSTRUCTION MANAGEMENT**	
2.1	Weekly Construction Meetings	$ 7,930.00
2.2	CPM Schedule	$ 4,460.00
2.3	Requests for Information (RFI)	$ 11,730.00
2.4	Shop Drawing Submittals	$ 34,850.00
2.5	Requests for Proposal (RFP)	$ 3,580.00
2.6	Field Directive (FD)	$ 3,590.00
2.7	Contractor Payment Applications	$ 2,140.00
2.8	Public Outreach	$ -
	SUBTOTAL TASK 2:	**$ 68,280.00**
3	**CONSTRUCTION INSPECTION**	
3.1	Inspection Services	$ 32,900.00
3.2	Landscape/Irrigation Inspection Services (IF APPLICABLE)	$ -
3.3	Project Closeout	$ -
	SUBTOTAL TASK 3:	**$ 32,900.00**
4	**UTILITY COORDINATION**	
4.1	Utility Coordination	$ -
	SUBTOTAL TASK 4:	**$ -**
5	**MATERIALS TESTING**	
5.1	QC Test Program	$ -
5.2	QA Test Program	$ -
	SUBTOTAL TASK 5:	**$ -**
6	**RECORD DRAWINGS**	
6.1	Record Drawings	$ -
	SUBTOTAL TASK 6:	**$ -**
SUBCONSULTANTS		
NSB Group of Gannett Fleming		$ 10,000.00
	SUBTOTAL SUBCONSULTANTS:	**$ 10,000.00**
ALLOWANCES		
Direct Expense Allowance		$ -
Owner's Allowance		$ -
	SUBTOTAL ALLOWANCES:	**$ 11,500.00**
	PROJECT TOTAL:	**$ 126,410.00**

EXHIBIT "C"
INSURANCE REQUIREMENTS

1. General.

1.1 At the same time as execution of this Agreement, Consultant must furnish City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement will not be deemed to apply to required Workers' Compensation coverage.

1.2 Consultant and any of its subconsultants must procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

1.3 The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

1.4 City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Consultant from liabilities that might arise out of the performance of the Agreement services under this Agreement by Consultant, its agents, representatives, employees, subconsultants, and Consultant is free to purchase any additional insurance as may be determined necessary.

1.5 Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve Consultant from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

1.6 Use of subconsultants: If any work is subcontracted in any way, Consultant must execute a written contract with subconsultant containing the same Indemnification Clause and Insurance Requirements as City requires of Consultant in this Agreement. Consultant is responsible for executing the Agreement with the subconsultant and obtaining Certificates of Insurance and verifying the insurance requirements.

2. Minimum Scope and Limits of Insurance. Consultant must provide coverage with limits of liability not less than those stated below.

2.1 *Professional Liability.* If the Agreement is the subject of any professional services or work performed by Consultant, or if Consultant engages in any professional services or work adjunct or residual to performing the work under this Agreement, Consultant must maintain Professional Liability insurance covering errors and omissions arising out of the work or services performed by Consultant, or anyone employed by Consultant, or anyone whose acts, mistakes, errors and omissions Consultant is legally liable, with a liability limit of $1,000,000 each claim and $2,000,000 all claims. In the event the Professional Liability

insurance policy is written on a "claims made" basis, coverage must extend for 3 years past completion and acceptance of the work or services, and Consultant, or its selected Design Professional will submit Certificates of Insurance as evidence the required coverage is in effect. The Design Professional must annually submit Certificates of Insurance citing that the applicable coverage is in force and contains the required provisions for a 3 year period.

2.2 *Commercial General Liability-Occurrence Form.* Consultant must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.3 *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles*
Vehicle Liability: Consultant must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Consultant owned, hired, and non-owned vehicles assigned to or used in the performance of Consultant's work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

2.4 *Workers Compensation and Employers Liability Insurance:* Consultant must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Consultant employees engaged in the performance of work or services under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

3. Additional Policy Provisions Required.

3.1 *Self-Insured Retentions or Deductibles*. Any self-insured retentions and deductibles must be declared and approved by City. If not approved, City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to City, its officers, officials, agents, employees, and volunteers.

3.1.1. Consultant's insurance must contain broad form contractual liability coverage.

3.1.2. Consultant's insurance coverage must be primary insurance with respect to City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by City, its officers, officials, agents, and employees will be in excess of the coverage provided by Consultant and must not contribute to it.

3.1.3. Consultant's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

3.1.4. Coverage provided by Consultant must not be limited to the liability assumed under the indemnification provisions of this Agreement.

3.1.5. The policies must contain a severability of interest clause and waiver of subrogation against City, its officers, officials, agents, and employees, for losses arising from Work performed by Consultant for City.

3.1.6. Consultant, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of 3 years following completion and acceptance of the Work. Consultant must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this 3 year period containing all the Agreement insurance requirements, including naming City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

3.1.7. If a Certificate of Insurance is submitted as verification of coverage, City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

3.2. *Insurance Cancellation During Term of Contract/Agreement.*

3.2.1. If any of the required policies expire during the life of this Agreement, Consultant must forward renewal or replacement Certificates to City within 10 days after the renewal date containing all the required insurance provisions.

3.2.2. Each insurance policy required by the insurance provisions of this Agreement must provide the required coverage and must not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to City, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice must be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, Consultant or its insurance broker must notify City of any cancellation, suspension, non-renewal of any insurance within seven (7) days of receipt of insurers' notification to that effect.

3.3 City as Additional Insured. The policies are to contain, or be endorsed to contain, the following provisions:

3.3.1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, Consultant including City's general supervision of Consultant; Products and Completed operations of Consultant; and automobiles owned, leased, hired, or borrowed by Consultant.

3.3.2. City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by Consultant even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT "D"
SPECIAL CONDITIONS

1. Contract Worker Access Controls, Badge and Key Access Requirements. A Contract Worker from Consultant's firm must not be allowed to begin work in any City facility without: (A) The prior completion and City's acceptance of the required background screening; and (8) when required, the Contract Worker's receipt of a City issued badge. A badge will be issued to a Contract Worker solely for access to City facility(s) to which the Contract Worker is assigned. Each Contract Worker who enters a City facility must use the badge issued to the Contract Worker.

2. Badges. After receipt of the badge application, the Contract Worker will proceed to the Badging Office for processing of the badge application and issuance of the badge. City will not process the badge application until the Contract Worker satisfies the required Background Screening (as defined herein). The Contract Worker must comply with all requirements and furnish all requested information as requested by the Badging Office. Any and all fees associated with security badging will be assessed in compliance with Chandler City Code §4-22.

3. Key Access Procedures. If the Contract Worker's services require keyed access to enter a City facility(s), a separate key issue/return form must be completed and submitted by Consultant for each key issued.

4. Stolen or Lost Badges or Keys. Consultant must report lost or stolen badges or keys to City immediately. A new badge application or key issue form must be completed and submitted along with payment of the applicable fees prior to issuance of a new badge or key.
5. Return of Badges or Keys. All badges and keys are the property of City and must be returned to City at the Badging Office within one (1) business day of when the Contract Worker's access to a City facility is no longer required to furnish the services under this Agreement. Consultant must collect a Contract Worker's badge and key(s) upon the termination of the Contract Worker's employment; when the Contract Worker's services are no longer required at the particular City facility(s); or upon termination, cancellation or expiration of this Agreement.

6. Consultant's default under this Section must include, but is not limited to the following: (1) Contract Worker gains access to a City facility(s) without the proper badge or key; (2) Contract Worker uses a badge or key of another to gain access to a City facility; (3) Contract Worker commences services under this Agreement without the proper badge, key or Background Screening; (4) Contract Worker or Consultant submits false information or negligently submits wrong information to City to obtain a badge, key or applicable Background Screening; or (5) Consultant fails to collect and timely return Contract Worker's badge or key upon termination of Contract Worker's employment, reassignment of Contract Worker to another City facility or upon the expiration, cancellation or termination of this Agreement. Consultant acknowledges and agrees that

the access control, badge and key requirements in this Section are necessary to preserve and protect public health, safety and welfare. Accordingly, Consultant agrees to properly cure any default under this Section within three (3) business days from the date notice of default is sent by City. The parties agree that Consultant's failure to properly cure any default under this Section must constitute a breach of this Section. In addition to any other remedy available to City at law or in equity, Consultant must be liable for and must pay to City the sum of one thousand dollars ($1,000.00) for each breach by Consultant of this Section. The parties further agree that the sum fixed above is reasonable and approximates the actual or anticipated loss to City at the time and making of this Agreement in the event that Consultant breaches this Section. Further, the parties expressly acknowledge and agree to the fixed sum set forth above because of the difficulty of proving City's actual damages in the event that Consultant breaches this Section. The parties further agree that three (3) breaches by Consultant of this Section arising out of any default within a consecutive period of three (3) months or three (3) breaches by Consultant of this Section arising out of the same default within a period of twelve (12) consecutive months will constitute a material breach of this Agreement by Consultant and City expressly reserves all of its rights, remedies and interests under this Agreement, at law and in equity including, but not limited to, termination of this Agreement.

ITEM 27

City Council Memorandum **Public Works & Utilities** **Memo No.** UA21-032

Date: February 25, 2021

To: Mayor and Council

Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director

From: Danny Sargent, Water Systems Manager

Subject: Resolution No. 5438, Authorizing an Agreement Among the City of Chandler, Pima Utility Company, and Sun Lakes Marketing Limited Partnership, LLP

Proposed Motion:

Move City Council approve Resolution No. 5438, authorizing an agreement among the City of Chandler; Pima Utility Company, an Arizona Corporation; and Sun Lakes Marketing Limited Partnership, LLP, an Arizona limited partnership and a corporate affiliate of Pima Utility Company; for the delivery of potable water through interconnections between their potable water distribution systems and for the abandonment of inactive wells located near Alma School and Willis roads, Alma School and Pecos roads, and Alma School and Queen Creek roads and authorizing the Public Works and Utilities Director to execute the Agreement.

Background:

Pima Utility Company manages a water distribution system for the Sun Lakes community, which is located southwest of Chandler and shares a common border with the City. The Pima Utility Company has requested the City provide an interconnection between the two respective water systems. With a population of just under 15,000 residents, Sun Lakes has a small water system and is dependent on only a few wells and storage reservoirs to meet its customers' needs. These factors have prompted Sun Lakes to seek interconnect facilities with its closest neighbors as a means of providing water to its customers during any potential future outages and planned maintenance activities.

This proposed interconnect agreement will allow Chandler to supply potable water to Sun Lakes in the event its system experiences an emergency condition and is unable to meet its normal customer demands. In return, Sun Lakes agrees to ensure four of its inactive irrigation wells, which are situated off of Alma School Road, are abandoned per Arizona Department of Water Resources guidelines. This abandonment is beneficial to Chandler as these wells are within proximity of the City's existing potable water wells and there is potential for these wells to provide a pathway for contaminants to reach the aquifer. Additionally, Chandler will be reimbursed for the water provided at Chandler’s then-current out-of-city industrial rate and also benefit by receiving Long Term Storage Credits (LTSCs) for all water delivered through the interconnect facilities.

Attachments

Resolution No. 5438

Agreement

RESOLUTION NO. 5438

AUTHORIZING AN AGREEMENT BETWEEN THE CITY OF CHANDLER, PIMA UTILITY COMPANY, AN ARIZONA CORPORATION, AND SUN LAKES MARKETING PARTNERSHIP, LLP, AN ARIZONA LIMITED LIABILITY PARTNERSHIP AND A CORPORATE AFFILIATE OF PIMA UTILITY COMPANY, FOR THE DELIVERY OF POTABLE WATER THROUGH INTERCONNECTIONS BETWEEN THEIR POTABLE WATER DISTRIBUTION SYSTEMS AND FOR THE ABANDONMENT OF INACTIVE WELLS LOCATED NEAR ALMA SCHOOL AND WILLIS ROAD, ALMA SCHOOL AND PECOS ROAD, AND ALMA SCHOOL AND QUEEN CREEK ROAD.

WHEREAS, City and Pima Utility Company ("Pima") own and operate separate and adjacent water systems that provide potable water within their respective service areas; and

WHEREAS, Pima desires to augment its water system in the event of certain unanticipated water shortages, such as those caused by structural or equipment failures; and

WHEREAS, Sun Lakes Marketing Limited Partnership ("Sun Lakes") owns four inactive irrigation wells within Pima's service area; and

WHEREAS, City desires to ensure that the inactive irrigation wells are properly abandoned in order to prevent the vertical movement of water between the upper and middle units of the regional aquifer near City's wells; and

WHEREAS, City and Pima have agreed that Pima will design and construct interties for the delivery of water from City's potable water system to Pima's potable water system that will allow City to furnish water to Pima under certain emergency conditions and pursuant to terms and conditions as set forth in a written agreement between City and Pima; and

WHEREAS, Pima has agreed to cause Sun Lakes to abandon the inactive irrigation wells.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. The City of Chandler is authorized to enter into a Potable Water Interconnect Agreement with Pima Utility Company and Sun Lakes Marketing Limited Partnership in the form attached hereto as Exhibit "**A**" (the "Agreement").

Section 2. The Mayor is authorized to sign this Resolution directing the Public Works and Utilities Director to execute the Agreement on behalf of the City of Chandler.

PASSED AND ADOPTED by the City Council of Chandler, Arizona, this ____ day of _____, 2021.

ATTEST:

_____ _____

CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5438 was duly passed and adopted by the Chandler City Council at a regular meeting held on the ____ day of _____, 2021, at which a quorum was present.

_____

CITY CLERK

APPROVED AS TO FORM:

_____

CITY ATTORNEY

Exhibit "A"

Potable Water Interconnect Agreement

Potable Water Interconnect Agreement between the City of Chandler and Pima Utility Company

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Potable Water Interconnect Agreement between the City of Chandler and Pima Utility Company

This Potable Water Interconnect Agreement (this "Agreement") is entered into effective this _____ day of _____, 2021 (the "Effective Date"), by and between the City of Chandler, an Arizona municipal corporation ("City"), Pima Utility Company, an Arizona corporation ("Pima"), and Sun Lakes Marketing Limited Partnership, LLP, an Arizona limited liability partnership and a corporate affiliate of Pima ("SLM"). This Agreement may refer to City, Pima, or SLM individually as a "Party" or collectively as the "Parties."

RECITALS

Whereas, City and Pima each own and operate separate and adjacent water systems that provide potable water within their respective service areas;

Whereas, Pima recognizes the need to augment its water system in the event of certain unanticipated water shortages, including but not limited to the types of water shortages and causes identified in Section 10.0 of this Agreement;

Whereas, SLM owns four inactive irrigation wells (the "Inactive Wells") within Pima's service area for which Pima has no future intended use. The Inactive Wells are registered with the Arizona Department of Water Resources as:

- 55-625788 (located near Alma School and Willis Roads);
- 55-625789 (located near Alma School and Queen Creek Roads);
- 55-625791 (located near Alma School and Willis Roads); and
- 55-625792 (located near Alma School and Pecos Roads)

Whereas, City desires that the Inactive Wells be abandoned consistent with Arizona Administrative Code R12-15-816 in order to prevent the vertical movement of water between the upper and middle units of the regional aquifer in proximity to City's drinking water wells; and

Whereas, the Parties desire to enter into this Agreement to provide for the delivery of potable water through interconnections between City's and Pima's potable water distribution systems under certain circumstances and the abandonment of the Inactive Wells, all as set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the promises, mutual covenants, and conditions contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties covenant and agree as follows:

1.0 RECITALS. The Parties agree that the Recitals set forth above are true and correct and are incorporated into the Agreement by this reference.

2.0 WELL ABANDONMENT. Within 180 days of the Effective Date of this Agreement, SLM shall abandon the Inactive Wells consistent with Arizona Administrative Code 12-15-816(G) as set forth in the Arizona Department of Water Resources Well Abandonment Handbook dated September 25, 2008. City will review and approve of the well abandonment plans prior to work commencing. Upon completion, Pima shall provide a copy of the well abandonment completion report for each of the Inactive Wells to City. City agrees the Inactive Wells have not been a known source of contaminants, or a known cause of a migration of contaminants, that have caused harm to or limited the use of any City wells.

3.0 DESIGN AND CONSTRUCTION OF INTERTIES

3.1 Interties will be established for delivery of water from City's domestic water system to Pima's domestic water system at the locations identified on the attached Exhibit A, incorporated by this reference. City and Pima may establish additional points of delivery or modify points of delivery if mutually agreed upon in writing. During the design review, City reserves the right to change the locations and capacity of the proposed interties as necessary to ensure adequate volumes of water can be supplied while maintaining the integrity of City's distribution system.

3.2 Pima will, at its expense, subject to the terms and conditions of this Agreement, and subject to Arizona Revised Statutes Title 34, contract for the design and construction of new and/or modified interties between the City's domestic water system and Pima's domestic water system at the locations described in Subsection 3.1 above. Subject to City's approval and in compliance with Title 34, Pima will select and hire an engineer to design and prepare plans for such construction of the interties (the "Intertie Improvement Plans"). Pima or its engineer will apply for and obtain all necessary regulatory and construction permit approvals for the Intertie Improvement Plans.

3.3 Once the Intertie Improvement Plans are approved pursuant to Subsection 3.2 above (the "Approved Plans"), Pima shall have the right, at Pima's expense, to select, with the reasonable approval of City and in compliance with Arizona Revised Statutes Title 34, a contractor or contractors to perform the construction work in accordance with such plans and may negotiate a construction contract for the construction of the intertie improvements as set forth on the Approved Plans (the "Approved Improvements"). Pima shall not permit any lien or claim of lien to be recorded or asserted against the real property on which the City water facilities are located for any work done or materials furnished in connection with the design or construction by Pima of the Approved Improvements and in the event any such lien or claim of lien arises, Pima shall cause the same to be released of record (either by payment or posting of a statutory bond) within fifteen (15) days following written demand from City. The Approved Improvements shall be deemed completed upon (i) delivery to City of a certificate

of substantial completion issued by the engineer who prepared the Approved Plans, and (ii) submission of paid invoices from the contractor(s) and subcontractor(s) evidencing the total actual cost of design and construction of the Approved Improvements, together with final lien waivers, (iii) delivery of "as built" plans for the Approved Improvements prepared by Pima's engineer, (iv) satisfactory inspection and approval by City of the Approved Improvements and as-built plans prior to the site commencing operation, and (v) final acceptance by the City of the Approved Improvements on City's property.

3.4 City shall grant Pima a temporary construction easement allowing Pima and its contractors and subcontractors to enter upon the real property on which City's water distribution system is located in order to construct the Approved Improvements. Moreover, City agrees to reasonably cooperate with Pima in connection with (i) obtaining all necessary governmental permits and approvals for the construction of the Approved Improvements; and (ii) taking such other action as may be reasonably necessary to accomplish the purpose and intent of this Agreement, including without limitation granting Pima any licenses, easements, or encroachment permits necessary for the installation and operation of the Approved Improvements. Nothing in this Section shall be construed as a waiver of Pima's obligation to comply fully with all applicable provisions of the City Code, including payment of fees.

3.5 Each intertie will include a suitable metering device or devices to accurately measure the water delivered from City to Pima, including flush volumes.

3.6 Each intertie will include suitable secure valving and locking devices to prevent unintentional, accidental, or malicious opening of the intertie.

3.7 Each intertie will include suitable devices for flushing the intertie before each use.

4.0 OWNERSHIP. City and Pima each shall own and operate Approved Improvements on its side of the interties. The Approved Plans and as-builts will identify ownership of all infrastructure constructed as part of the Approved Improvements.

5.0 MAINTENANCE AND REPAIR

5.1 City and Pima each shall own, maintain, and repair the Approved Improvements on its side of the interties. Each party shall be responsible for ensuring its interconnection facilities and equipment are maintained in operable condition.

5.2 Pima shall reimburse City for the costs incurred for maintenance and repair of the Approved Improvements owned by City.

6.0 OPERATION

6.1 The interties shall be operated only for Qualified needs as defined in Section 10.0 of this Agreement.

6.2 Following notice as provided in Subsection 6.5 of this Section, personnel from both Parties shall adhere to the following procedures for operation of each intertie. The following actions can only occur when a representative for each Party is present:

6.2.1 Unlock the valves on each Party's respective side of the intertie as applicable;

6.2.2 Open the flushing devices on each Party's respective side of the intertie and flush those "dead end" portions of the system approaching the intertie as applicable;

6.2.3 After the water from both systems has cleared, each Party shall open the unlocked valves on its respective side of the system, as applicable;

6.2.4 For direct connections to Pima's distribution system, Pima shall then open a flushing device on its side of the intertie to flush any remaining stagnant water from the intertie;

6.2.5 After flushing the line for an amount of time sufficient to remove all stagnant water from the intertie section as applicable, the water shall be allowed to flow into Pima's domestic water system;

6.2.6 For connections from City's system directly to Pima water plants/storage tanks, flushing on the Pima side of the interconnection shall not apply;

6.2.7 After Pima notifies City in writing the need for water has ceased, or City notifies Pima in writing that it no longer has water available to satisfy the need as determined under Section 9 of this Agreement, personnel from both Parties shall return all intertie valving to the closed position.

6.3 The meter at each intertie operated under this Agreement shall be read by both Parties prior to the start of an interconnection and again after the intertie is closed.

6.4 The persons identified in Subsection 6.5 of this Section shall refine the procedures outlined herein, as necessary, and no operation of any intertie shall be commenced if there is a material dispute as to the operational protocol to be followed.

6.5 Pima requests for operation of any intertie must be received from one of the following:

Robson Communities Utilities Director; or
Pima Utility General Manager; or
a duly authorized representative of the Utilities Director or General Manager.

The request must be made, in writing, to the City Water Systems Manager and copied to the Utilities Operations Manager. The Water Systems Manager will coordinate the effort with the authorized Pima representative and pertinent City staff.

City will review all requests, and provide approval via email or written correspondence from one of the following:

City of City Public Works and Utilities Director; or
Utilities Operations Manager; or
Water Systems Manager; or
a duly authorized representative of the City of Chandler Public Works and Utilities Director.

Any denial of a request shall be in writing and shall state in reasonable detail the reasons, in accordance with the terms of this Agreement, for being unable to operate the intertie.

7.0 WATER QUALITY. Both Parties understand, acknowledge and agree that the quality of the water in each domestic water system must meet Federal and State safe drinking water standards. Therefore, City agrees to provide to Pima, within 10 business days of written request by Pima to City, copies of past water quality reports, proof of compliance performance, and laboratory results for all compliance samples taken. Additionally, Pima agrees to provide to City, within 10 business days of written request by City to Pima, copies of past water quality reports, proof of compliance performance, and laboratory results for all compliance samples taken. Moreover, both Parties agree that following flushing of the intertie consistent with Subsection 6.2 above, the quality of the water delivered by City to Pima through the intertie shall meet applicable drinking water standards. Once water enters Pima's system, City is not responsible for any changes in water quality that occur within Pima's system.

8.0 INDEMNIFICATION. Pima shall indemnify, defend, save and hold harmless the City and its officers, officials, agents and employees ("City Indemnitee") from any and all claims, actions, liabilities, damages, losses or expenses (including court costs, attorneys' fees and costs of claim processing, investigation and litigation) ("Claims") to the extent caused or alleged to be caused, by the negligent or willful acts, or errors or omissions of Pima or any of its owners, officers, directors, agents, employees, or subcontractors in connection with this Agreement. Similarly, the City shall indemnify, defend, save and hold harmless Pima and its officers, officials, agents and employees ("Pima Indemnitee") from any and all Claims to the extent caused or alleged to be caused, by the negligent or willful acts, or errors or omissions of City or any of its owners, officers, directors, agents, employees, or subcontractors in connection with this Agreement. These indemnities include any claim or amount arising out of or recovered under workers' compensation law or on account of the failure of the party to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. In each case, the Indemnifying party is responsible for primary loss investigation, defense and judgment costs where this indemnification applies. Pima and City each waives all rights of subrogation against Indemnitee for losses arising from or related to this Agreement. The obligations of Pima and City under this Subsection shall survive the termination or expiration of this Agreement.

9.0 INSURANCE. Pima and the City each agree to procure insurance under the terms and conditions and for the amounts of coverage set forth in Exhibit B against claims that may arise from or relate to their respective construction or operation of the interties under this Agreement by such party and its

agents, representatives, employees, and subcontractors. Pima and City and any applicable subcontractors must maintain this insurance until all of their obligations have been discharged, including any warranty periods. These insurance requirements are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement. Neither party warrants that the minimum limits stated in Exhibit B are sufficient to protect the insured party from liabilities that might arise out of the performance of this Agreement by such party and its agents, representatives, employees, or subcontractors. Pima and City are each free to purchase such additional insurance as they may determine is necessary.

10.0 QUALIFIED NEEDS. A Qualified Need is an unanticipated water shortage not caused by growth or drought. Qualified Need includes, but are not limited to, failure of a well or booster station, rupture of a water main, structural failure of a treatment plant or water storage tank, and other significant system failures impacting the quality or quantity of water available for delivery. Qualified Need may include short-term shortages, the causes of which may be remedied within days or weeks, or longer-term shortages of up to nine months if the shortage requires rehabilitation or replacement of a well, the repair or replacement of a large storage tank, or another remedy requiring longer-term design and construction. Qualified Need may also include other circumstances as mutually agreed to by the Parties.

11.0 AVAILABILITY OF WATER.

11.1 City will not be required to furnish water under any circumstances where it has been determined by City that such an action would not be feasible or would otherwise cause significant problems in the operation of City's domestic water system.

11.2 Both parties agree that in the event where circumstances arise that the operation of an intertie will interfere with or hamper City's ability to reasonably meet its own service commitments, City shall have the right to refuse to provide water requested by Pima under this Agreement.

12.0 LIMITATION ON USE OF WATER. Water that City furnishes to Pima under this Agreement shall not be wheeled through Pima's water system for delivery to another water system without the prior, written approval of City.

13.0 ASSIGNMENT OF LONG-TERM STORAGE CREDITS. All water delivered by City to Pima pursuant to this agreement shall be accounted for as recovered Long-Term Storage Credits ("LTSC"), which shall be assigned from Pima to City under A.R.S. § 45-854.01 no later than March 31 of the calendar year following such deliveries, in an amount equal to the amount of water delivered. City and Pima may agree in writing to extend the deadline to assign LTSC, but in no event shall the deadline extend beyond 12 months after the date the water was delivered to Pima.

14.0 COST OF WATER. Pima will pay City for water delivery at City's then- current rate, at the time the water is delivered, for industrial water customers outside of City's jurisdiction.

15.0 REPORTS. Logs of all operations of each intertie including date operation commenced, duration of operation, beginning meter readings and ending meter readings shall be maintained by both Parties. Quarterly intertie operation reports shall be submitted by each Party to the other by the 15th day of each month following the quarter in which an intertie was operated. Any differences in meter readings will be reconciled by mutual agreement of both Parties. If the Parties are unable to agree on a reconciliation of meter discrepancies, meters will be tested for accuracy using manufacturer's specifications for testing, and the most accurate meter will be used to quantify water delivered.

16.0 TERM. This Agreement may be cancelled at any time and for any reason by either Party after providing 365 days written notice to the other Party of its intent to cancel. If this Agreement expires or is terminated without provisions for extension or modification, the interconnection facilities will be removed or abandoned by each Party in accordance with applicable requirements, with the understanding Pima will reimburse City for all incurred abandonment costs directly related to the Approved Improvements. Unless cancelled early pursuant to this Section, this Agreement shall terminate on January 1, 2040, with the understanding that the Agreement may be amended to extend it for a new term by mutual agreement of the Parties.

17.0 MISCELLANEOUS

17.1 City acknowledges Pima may enter into agreements with other entitles to provide for interconnections, interties or to otherwise meet any water needs of Pima and that nothing herein shall be deemed to require Pima to use City exclusively to provide the water City agrees to provide pursuant to this Agreement. Similarly, this Agreement does not prohibit City from entering into interconnection or other similar agreements with other entities.

17.2 The Parties hereby represent and warrant to one another as follows: (i) each of the Parties is duly formed and validly existing under the laws of its state of organization; and (ii) the individuals executing this Agreement on behalf of the respective Parties are authorized and empowered to bind the Parties on whose behalf each such individual is signing.

17.3 In the event of any legal action or proceeding for the enforcement of any right or obligation herein contained, the prevailing party shall be entitled to recover from the unsuccessful party its costs and attorneys' fees incurred in the preparation and prosecution of such action or proceeding, or any appeal thereof.

17.4 This Agreement shall bind and inure to the successors and assigns of the Parties. Notwithstanding the foregoing, neither Party shall have the right to assign any of its rights hereunder to any third party. Any attempt by either Party to assign any rights under this Agreement shall be void ab initio and of no force and effect. No other person or entity shall be a third party beneficiary to this Agreement and no term or provision of this Agreement or the exhibits hereto is intended to be, nor may any term or provision be construed to be, for the benefit of any other person or entity not a party to this

Agreement and no other person or entity has any right or cause of action under this Agreement.

17.5 Except for requests, approvals, and denials under Subsection 6.5, any and all notices required or permitted under this Agreement shall be given in writing and personally delivered or faxed or sent via registered or certified mail, return receipt requested, postage prepaid, or by a nationally recognized overnight courier service (e.g. Federal Express, DHL) addressed as follows:

To Pima:	Pima Utility Company Attention: Brian Smith, or the then-acting Utilities Director 9532 E. Riggs Road Sun Lakes, Arizona 85248-7411 Facsimile No. 480-895-4235
With a copy to:	Pima Utility Company Pamela Gulsvig, or the then-acting General Counsel 9532 E. Riggs Road Sun Lakes, Arizona 85248-7411 Facsimile No. 480-895-4237
To City:	City of Chandler Attention: Water Systems Manager 1475 E. Pecos Road Chandler, Arizona 85248 Facsimile No. (480) 782-3630
With a copy to:	Chandler City Attorney P. O. Box 4008, MS 602 Chandler, AZ 85244 Facsimile No. (480) 782-4652

or any other address designated by such Party by prior written notice to the other Party at the address set forth above, and such notice of such communication shall be deemed to have been given as of the date of delivery (including if such delivery is rejected or refused), if hand-delivered, or courier-delivered (including Federal Express or other established nationally recognized overnight service which obtains a signed receipt upon delivery), or as of the date faxed, if transmitted prior to 5:00 PM, Arizona time, on a business day, otherwise it shall be deemed to have been given as of the next business day, or as of three days after the date of mailing if mailed certified, return receipt requested, postage prepaid.

17.6 This Agreement shall be governed by Arizona law, exclusive of its choice of law rules. Venue for any action brought hereunder shall be in Maricopa County, Arizona. The Parties understand and agree that this Agreement represents the entire agreement of the Parties with respect to its subject matter, and all agreements, oral or written, entered into prior to this Agreement are superseded by this Agreement. Any amendment or addendum hereto shall not be effective unless it is in writing signed by both Parties. The Parties understand and agree that the section headings are just for convenience and shall not affect the interpretation of the terms and provisions of this Agreement. The Parties agree that each Party has reviewed this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply to the interpretation of this Agreement. Time is of the essence for the performance of all conditions and obligations of this Agreement.

17.7 Each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law. However, if any provision of this Agreement is declared illegal, invalid or unenforceable for any reason, the remaining provisions shall, to the extent permitted by law, remain in full force and effect and shall not be invalidated, impaired or affected thereby.

17.8 Failure of any Party to exercise any right, remedy or option arising out of a breach of this Agreement shall not be deemed a waiver of any right, remedy or option with respect to any subsequent or different breach.

17.9 Notwithstanding the foregoing, the Parties acknowledge that neither Party is an agent of the other and neither shall have the power to bind the other Party without that Party's prior written consent, and nothing in this Agreement shall be construed as creating any partnership, joint venture, employment or agency between the Parties.

17.10 All time periods referred to in this Agreement shall include all Saturdays, Sundays and holidays, unless the period of time specifies business days. If the date to perform any act or give any notice with respect to this Agreement falls on a Saturday, Sunday or a holiday observed by the City of Chandler, the act or notice may be timely performed on the next succeeding day that is not a Saturday, Sunday or holiday observed by the City of Chandler.

17.11 Each Party has had the opportunity to review, understand and negotiate this Agreement and to be represented by its own independent legal counsel with respect to the same.

17.12 This Agreement may be executed in any number of counterparts. Any set of identical counterparts containing the original signatures of all Parties shall be deemed to constitute one instrument, and each such set of original counterpart signatures shall be deemed a complete original.

17.13 This Agreement may be cancelled for conflicts of interest under A.R.S. § 38-511.

THE BALANCE OF THIS PAGE INTENTIONALLY LEFT BLANK

SIGNATURE PAGE ATTACHED

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as set forth below.

Pima Utility Company, an Arizona corporation

By _____
Print Name: Brian J. Smith
Title: Vice President
Date signed: 1/29/21

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
Assistant City Attorney

Sun Lakes Marketing Limited Partnership, LLP, an Arizona limited liability partnership

By _____
Print Name: Paula Robinson
Title: Vice President of General Partner
Date signed: 1/29/2021

City of Chandler, an Arizona municipal corporation

By _____
John Knudson
Public Works & Utilities Director
Date signed: _____

EXHIBIT A

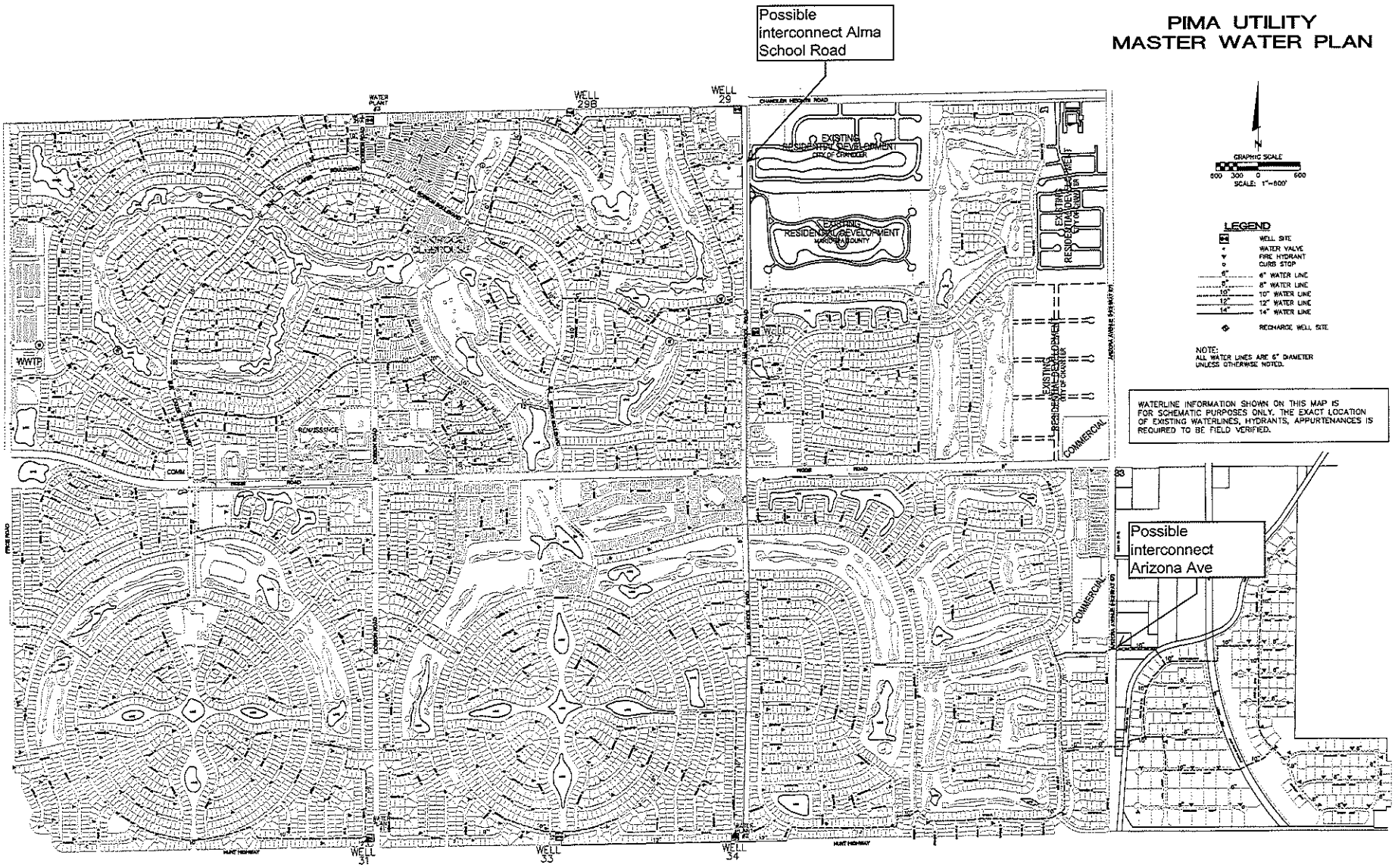
Possible interconnect Alma School Road
PIMA UTILITY
MASTER WATER PLAN
WELL 29B
WELL 29
WELL 31
WELL 33
WELL 34
WWTP
EXISTING RESIDENTIAL DEVELOPMENT CITY OF CHANDLER
EXISTING RESIDENTIAL DEVELOPMENT MARICOPA COUNTY
COMMERCIAL
GRAPHIC SCALE
SCALE: 1"=600'
LEGEND
WELL SITE
WATER VALVE
FIRE HYDRANT
CURB STOP
6" WATER LINE
8" WATER LINE
10" WATER LINE
12" WATER LINE
14" WATER LINE
RECHARGE WELL SITE
NOTE:
ALL WATER LINES ARE 6" DIAMETER UNLESS OTHERWISE NOTED.
WATERLINE INFORMATION SHOWN ON THIS MAP IS FOR SCHEMATIC PURPOSES ONLY. THE EXACT LOCATION OF EXISTING WATERLINES, HYDRANTS, APPURTENANCES IS REQUIRED TO BE FIELD VERIFIED.
Possible interconnect Arizona Ave

EXHIBIT B
INSURANCE

General.

A. At the same time as execution of this Agreement, Pima shall furnish the City a certificate of insurance on a standard insurance industry ACORD form. The ACORD form must be issued by an insurance company authorized to transact business in the State of Arizona possessing a current A.M. Best, Inc. rating of A-7, or better and legally authorized to do business in the State of Arizona with policies and forms satisfactory to City. Provided, however, the A.M. Best rating requirement shall not be deemed to apply to required Workers' Compensation coverage.

B. Pima and any of its subcontractors shall procure and maintain, until all of their obligations have been discharged, including any warranty periods under this Agreement are satisfied, the insurances set forth below.

C. The insurance requirements set forth below are minimum requirements for this Agreement and in no way limit the indemnity covenants contained in this Agreement.

D. The City in no way warrants that the minimum insurance limits contained in this Agreement are sufficient to protect Pima from liabilities that might arise out of the performance of the services under this Agreement by Pima, its agents, representatives, employees, subcontractors, and Pima is free to purchase any additional insurance as may be determined necessary.

E. Failure to demand evidence of full compliance with the insurance requirements in this Agreement or failure to identify any insurance deficiency will not relieve Pima from, nor will it be considered a waiver of its obligation to maintain the required insurance at all times during the performance of this Agreement.

F. Use of Subcontractors: If any work is subcontracted in any way, Pima shall execute a written contract with Subcontractor containing the same Indemnification Clause and Insurance Requirements as the City requires of Pima in this Agreement. Pima is responsible for executing the Agreement with the Subcontractor and obtaining Certificates of Insurance and verifying the insurance requirements.

Minimum Scope and Limits of Insurance. Pima shall provide coverage with limits of liability not less than those stated below.

A. *Commercial General Liability-Occurrence Form.* Pima must maintain "occurrence" form Commercial General Liability insurance with a limit of not less than $2,000,000 for each occurrence, $4,000,000 aggregate. Said insurance must also include coverage for

products and completed operations, independent contractors, personal injury and advertising injury. If any Excess insurance is utilized to fulfill the requirements of this paragraph, the Excess insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

B. *Automobile Liability-Any Auto or Owned, Hired and Non-Owned Vehicles*

Vehicle Liability: Pima must maintain Business/Automobile Liability insurance with a limit of $1,000,000 each accident on Pima owned, hired, and non-owned vehicles assigned to or used in the performance of Pima's work or services under this Agreement. If any Excess or Umbrella insurance is utilized to fulfill the requirements of this paragraph, the Excess or Umbrella insurance must be "follow form" equal or broader in coverage scope than underlying insurance.

C. *Workers Compensation and Employers Liability Insurance*: Pima must maintain Workers Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of Pima employees engaged in the performance of work or services under this Agreement and must also maintain Employers' Liability insurance of not less than $1,000,000 for each accident and $1,000,000 disease for each employee.

Additional Policy Provisions Required.

A. *Self-Insured Retentions or Deductibles*. Any self-insured retentions and deductibles must be declared and approved by the City. If not approved, the City may require that the insurer reduce or eliminate any deductible or self-insured retentions with respect to the City, its officers, officials, agents, employees, and volunteers.

1. Pima's insurance must contain broad form contractual liability coverage.

2. Pima's insurance coverage must be primary insurance with respect to the City, its officers, officials, agents, and employees. Any insurance or self-insurance maintained by the City, its officers, officials, agents, and employees shall be in excess of the coverage provided by Pima and must not contribute to it.

3. Pima's insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

4. Coverage provided by Pima must not be limited to the liability assumed under the indemnification provisions of this Agreement.

5. The policies must contain a severability of interest clause and waiver of subrogation against the City, its officers, officials, agents, and employees, for losses arising from Work performed by Pima for the City.

6. Pima, its successors and or assigns, are required to maintain Commercial General Liability insurance as specified in this Agreement for a minimum period of three years following completion and acceptance of the Approved Improvements. Pima must submit a Certificate of Insurance evidencing Commercial General Liability insurance during this three year period containing all the Agreement insurance requirements, including naming the City of Chandler, its agents, representatives, officers, directors, officials and employees as Additional Insured as required.

7. If a Certificate of Insurance is submitted as verification of coverage, the City will reasonably rely upon the Certificate of Insurance as evidence of coverage but this acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement.

B. *Insurance Cancellation During Term of Contract/Agreement.*

1. If any of the required policies expire during the life of this Agreement, Pima must forward renewal or replacement Certificates to the City within ten days after the renewal date containing all the required insurance provisions.

2. Each insurance policy required by the insurance provisions of this Agreement shall provide the required coverage and shall not be suspended, voided or canceled except after 30 days prior written notice has been given to the City, except when cancellation is for non-payment of premium, then ten days prior notice may be given. Such notice shall be sent directly to Chandler Law-Risk Management Department, Post Office Box 4008, Mailstop 628, Chandler, Arizona 85225. If any insurance company refuses to provide the required notice, Pima or its insurance broker shall notify the City of any cancellation, suspension, non-renewal of any insurance within seven days of receipt of insurers' notification to that effect.

A. *City as Additional Insured.* The policies are to contain, or be endorsed to contain, the following provisions:

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions: The City, its officers, officials, agents, and employees are additional insureds with respect to liability arising out of activities performed by, or on behalf of, Pima including the City's general supervision of Pima; Products and Completed operations of Pima; and automobiles owned, leased, hired, or borrowed by Pima.

2. The City, its officers, officials, agents, and employees must be additional insureds to the full limits of liability purchased by Pima even if those limits of liability are in excess of those required by this Agreement.

EXHIBIT C
CONTACT INFORMATION

City of Chadler:

Public Works & Utilities Director
John Knudson
John.Knudson@chandleraz.gov
(480) 782-3590

Utilities Operations Manager
Paul Roy
Paul.Roy@chandleraz.gov
(480) 782-3593

Water Systems Manager
Danny Sargent
Danny.Sargent@chandleraz.gov
(520) 904-4381

Pima/Sun Lakes:

Robson Communities Utilities Director
Brian Smith
Brian.Smith@robson.com
(480) 895-4235

Pima Utility General Manager
Dave Voorhees
Dave.Voorhees@robson.com
(480)895-5009

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City Council Memorandum **Public Works & Utilities** **Memo No.** N/A

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Joshua H. Wright, Assistant City Manager John Knudson, Public Works and Utilities Director
From:	John Ardans, Utilities Maintenance Manager
Subject:	Purchase of Network Equipment and Services

Proposed Motion:

Move City Council approve the purchase of network equipment and services from Sentinel Technologies, Inc., utilizing 1GPA Contract No. 21-02PV-08, in an amount not to exceed $126,940.

Background/Discussion:

The Tumbleweed Aquifer Storage and Recovery (ASR) site consists of ten aquifer recharge and recovery wells used to store reclaimed water during times of excess and to supplement the reclaimed water system during times of peak demand. Upgrades are underway to change over from radio communication to fiber optic communications to enhance operations and security as well as to improve control remotely from the Airport Water Reclamation Facility (AWRF). To facilitate this communication conversion, new programmable logic controllers are being upgraded to the latest versions as current units are obsolete and unsupported by the manufacturer. This upgrade is in accordance with the Supervisory Control and Data Acquisition (SCADA) Standards and Governance study as well as the City of Chandler Fiber Optic Master plan. This proposal is for installation of the required network switches and integration support to allow for communication between the programmable logic controllers and the SCADA system. The ultimate goal of the project is to provide improved reliability and security of communications and control between the Tumbleweed ASR well field and the AWRF.

Evaluation:

Paradise Valley Unified School District competitively solicited and awarded a contract for cybersecurity products and services, on behalf of 1GPA, to Sentinel Technologies, Inc. The City has a current Intergovernmental Agreement with 1GPA allowing for the cooperative use of their contracts.

Staff recommends cooperative use of this contract because it allows the City to take advantage of volume discounts. The term of the 1GPA contract is valid through November 19, 2021.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N

612.3960.5219.0.0	Reclaimed Water Reserve	Other Professional Services	$126,940	N

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City Council Memorandum **Public Works & Utilities** **Memo No.** UA21-030

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Joshua H. Wright, Assistant City Manager
John Knudson, Public Works and Utilities Director
From: Danny Sargent, Water Systems Manager
Subject: Agreement No. BF8-936-3802, Amendment No. 2, with Western States Fire Protection Co., for Fire Protection Services

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Proposed Motion:

Move City Council approve Agreement No. BF8-936-3802, Amendment No. 2, with Western States Fire Protection Co., for fire protection services, increasing the spending limit by $720,000, for a revised amount not to exceed $920,000.

Background/Discussion:

The Pecos Surface Water Treatment Plant (PSWTP), located at 1475 E. Pecos Road, was built in 1987 and placed into service in 1989. The administration building houses a number of Public Works & Utilities Department staff and is the central hub of all water treatment and production throughout the City.

Recently, a routine inspection of the fire monitoring systems at the PSWTP uncovered equipment failures which are preventing the various building fire alarm panels from communicating with each other. The lack of communication is a safety concern as in the event of a fire, the panels will not be able to relay trouble alarms to the Administration building to alert staff.

Accordingly, PSWTP staff has worked with Western States Fire Protection representatives to develop a scope and cost associated with replacing the obsolete panels. Due to the age of the equipment, the systems cannot be repaired and must be replaced. This amendment will provide for the purchase and installation of replacement fire monitoring equipment and the repair of the alarm communications network.

The Buildings & Facilities Division is also requesting additional funds to replace fire alarm systems that were identified as Priority 1, Year 1, in the facility condition assessment performed by consultant Faithful and Gould. Several of the fire alarm systems are currently experiencing operational issues and should be replaced now and not be delayed in anticipation of bond allocations.

Evaluation:

On September 14, 2017, City Council approved an agreement with Western States Fire Protection for fire protection services, for a two-year term, with the option of up to two (2) two-year extensions. The contract was renewed through August 31, 2021, and the current term of this agreement is still in effect. However, staff is requesting an increase to the spending limit that was previously approved by City Council. All other terms of the original agreement remain unchanged.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
401.3210.6211.6BF628	Capital Projects	Existing City Building Renovations	$574,000	Y
601.3820.6718.6WA210	Water Bonds	Water Treatment Plant Improvements	$146,000	Y

Attachments

Agreement Amendment No. 2

City Clerk Document No. _____

City Council Meeting Date: February 25, 2021

AMENDMENT TO CITY OF CHANDLER AGREEMENT
FIRE PROTECTION SERVICES
CITY OF CHANDLER AGREEMENT NO. BF8-936-3802

THIS AMENDMENT NO. 2 (Amendment No. 2) is made and entered into by and between the City of Chandler, an Arizona municipal corporation (City), and Western States Fire Protection Co., (Contractor), (City and Contractor may individually be referred to as Party and collectively referred to as Parties) and made _____ , 20___ (Effective Date).

RECITALS

WHEREAS, the Parties entered into an agreement for fire protection services (Agreement); and

WHEREAS, the term of the Agreement was September 1, 2017, through August 31, 2019, with the option of up to two two-year extensions; and the Agreement was renewed and is valid through August 31, 2021.

AGREEMENT

NOW THEREFORE, the Parties agree as follows:

1. The recitals are accurate and are incorporated and made a part of the Agreement by this reference.

2. Section 4, Price is hereby amended, to increase the annual spending limit by $720,000, for a revised not to exceed amount of $920,000 for the term ending August 31, 2021 per pricing set forth in Exhibit B of Amendment No. 1 which is incorporated into and made a part of this Amendment No. 2 by reference.

3. All other terms and conditions of the Agreement remain unchanged and in full force and effect. If a conflict or ambiguity arises between this Amendment No. 2 and the Agreement, the terms and conditions in this Amendment No. 2 prevail and control.

IN WITNESS WHEREOF, the Parties have entered into this Amendment on the Effective Date.

FOR THE CITY

By: _____

Its: Mayor

FOR THE CONTRACTOR

By: Aaron Clark Digitally signed by Aaron Clark DN: C=US, E=aaron.clark@wsfp.us, O=Western States Fire Protection, OU=Sales, CN=Aaron Clark Date: 2021.02.02 17:41:26-07'00'

Its: Sales Manager

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
City Clerk

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Community of Innovation

City Council Memorandum **Public Works & Utilities** **Memo No.** UA21-034

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Joshua H. Wright, Assistant City Manager John Knudson, Public Works and Utilities Director
From:	Danny Sargent, Water Systems Manager
Subject:	Sole Source Purchase of Hach Equipment, Service, and Parts

Proposed Motion:

Move City Council approve the sole source purchase of Hach equipment, service, and parts, from Hach Company, in the amount of $265,000.

Background/Discussion:

The Public Works & Utilties Department currently has a large amount of Hach Company water quality monitoring instruments installed throughout various water and wastewater treatment facilities. These instruments are critical to the operation of the facilities they serve and provide much needed data to the operations staff to ensure regulatory compliance and public health goals are maintained at all times.

Hach Company is a sole source supplier of the equipment, parts, supplies, and technical support needed to maintain their proprietary equipment. Hach Company parts and supplies are required to maintain the accuracy and reliability of the equipment and to ensure the warranty remains intact.

This purchase will provide staff with the ability to maintain existing Hach Company water quality instrumentation hardware. Additionally, staff will also be able to replace aging water quality instruments when their useful life has been exceeded.

Evaluation:

The Public Works & Utilities Department utilizes Hach Company products and services for instrumentation with various processes. Hach Company is the sole service provider for the Hach Service Partnership used by the City, as well as the sole supplier, manufacturer, and distributor of multiple instruments used within the Public Works & Utilities Department. Hach Company does not have authorized distributors. Staff recommends the purchase of Hach equipment, service and parts, from Hach Company, as a sole source.

Fiscal Impact

Account No.	Fund Name	Program Name	Dollar Amount	CIP Funded Y/N
605.3830.5316.0.0	Water Operating	Machinery/Equipment	$35,000	N

605.3860.5316.0.0	Water Operating	Machinery/Equipment $85,000	N
616.3930.5316.0.0	Wastewater Industrial Process Treat	Machinery/Equipment $80,000	N
615.3960.5316.0.0	Wastewater Operating	Machinery/Equipment $50,000	N
615.3970.5316.0.0	Wastewater Operating	Machinery/Equipment $15,000	N

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City Council Memorandum **Development Services Memo No.** 21-007c

Date:	February 25, 2021
To:	Mayor and Council
Thru:	Marsha Reed, City Manager Joshua H. Wright, Assistant City Manager Derek D. Horn, Development Services Director
From:	Lauren Schumann, Senior Planner
Subject:	PLH19-0063/PLT19-0055 Elux at McQueen
Request:	Rezoning from Agricultural (AG-1) district to Planned Area Development (PAD) for multi-family residential Preliminary Development Plan (PDP) for site layout and building architecture Preliminary Plat approval
Location:	Southeast corner of McQueen Road and Loop 202 Santan Freeway
Applicant:	Brennan Ray, Burch & Cracchiolo, P.A.

Proposed Motion:

Rezoning

Move City Council introduce and tentatively adopt Ordinance No. 4958 approving PLH19-0063 Elux at McQueen, Rezoning from AG-1 to PAD for multi-family residential located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the conditions as recommended by the Planning and Zoning Commission.

Preliminary Development Plan

Move City Council approve Preliminary Development Plan PLH19-0063 Elux at McQueen for site layout and building architecture located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the conditions as recommended by the Planning and Zoning Commission.

Preliminary Plat

Move City Council approve Preliminary Plat PLT19-0055 Elux at McQueen located at the southeast corner of McQueen Road and the Loop 202 Santan Freeway, subject to the condition recommended by the Planning and Zoning Commission.

Background Data:

- This item was continued from the January 28, 2021, City Council meeting to allow the applicant more time to evaluate the proposal
- Approximately 12.87 net acres
- Subject site zoned AG-1 and undeveloped
- General Plan designates the site as Neighborhoods and within a Growth Area
- Chandler Airpark Area Plan (CAAP) designates the site as High Density Residential (HDR) 12.1-18 units per acre (du/ac)
- Project consist of 162 units totaling 12.59 du/ac

Surrounding Land Use Data:

North	Loop 202 Santan Freeway, then single-family residential	South	Single-family residential (6.7 du/ac)
East	Multi-family (17.94 du/ac)	West	McQueen Road, then vacant agricultural

General Plan and Area Plan Designations:

	Existing	Proposed
General Plan	Neighborhoods & Growth Area	No Change
Chandler Airpark Area Plan	High Density Residential (HDR) 12.1-18 du/ac	No Change

Proposed Development

Proposed Land Use	• Multi-family dwelling units • 162 Units • 12.59 dwelling units per acre (du/ac)	
Building Design	Height	• 17' 6" single-story buildings • 27' 6" two-story buildings; max 30 feet • As measured to top of highest point of roof
	Roof Design and Material	• Gable roofs and flat parapets • Concrete roof tiles
	Façade Materials	• Modern architectural style • Stucco • Tile cladding
	Building Accents	• Four different sizes of tempered glazed windows • Metal trim/fascia • Tile cladding • Canopy at front-door and rear patios
	Building Access	• Direct ground-floor walk-up access to each unit
Site Design & Open Space	• Detached and attached single-family-like rental units • 108 1-story units • 54 2-story units • Private gated yards for each unit, 192-248 sq. ft. typ. • Pool, ramadas, pickle ball court, indoor community gym, dog park, and 1-story club house • 2.88 acres of shared open space • Full signalized access along McQueen Road with secondary access from Senate Street to the east; the development will be gated	
Parking	• 300 parking spaces required • 327 parking spaces provided including private garages, covered and uncovered spaces, and guest parking	

Review and Recommendation

Planning staff finds the proposal is consistent with the General Plan and more specifically consistent with the 1998 Chandler Airpark Area Plan (CAAP) designation of High-Density Residential. Densities up to 18 dwelling units per acre can be considered for properties adjacent to arterial streets, freeways, and/or employment corridors. The subject site abuts the Loop 202 Santan freeway and existing multi-family to the east. The proposed single unit detached and attached units offer a transition between low-medium density single-family residential to the south and the freeway to the north while aligning with the vision of the CAAP. Although the proposal is for multi-family residential, its design and function are similar to single-family residential.

Staff finds the proposal to be consistent with the goals of the General Plan and the CAAP and recommends approval subject to conditions.

Economic Analysis

An economic and fiscal impact analysis was conducted based on project details provided by the applicant and staff assumptions. The analysis determined the project will generate a positive net fiscal impact for the City. Net income to the City resulting from the project is estimated at approximately $843,336 over 10 years. This total includes revenues from property taxes, building permit and plan review fees, transaction privilege tax on construction, real property rental tax, state shared revenues, and local spending by residents.

Traffic Analysis

The applicant for the proposed development has worked with City staff regarding access to the site via McQueen Road. As surrounding properties developed to the east and south, traffic circulation was considered. Senate Street, a public street, was constructed during the development of the Horizon subdivision to the south, allowing full access to the southeast corner of the subject site. The applicant provided a Traffic Impact Analysis (TIA) to the City's Transportation Engineer detailing traffic patterns of the proposed residential. The counts returning to the site via the recommended route (Senate Street) raised concerns about residents making unprotected u-turns at Germann Road or the entry to the Horizon subdivision to access what was previously planned to be a right-in/right-out only access on McQueen Road. The solution for this development and the larger area, including future office uses west of McQueen Road, is signalizing Armstrong Way at McQueen Road. As such, a traffic signal allowing full movement on McQueen Road is proposed and supported by staff in order to reduce traffic on Senate Street and to facilitate traffic circulation for future industrial properties on the west side of McQueen Road. The TIA has been reviewed and accepted by the City's Transportation Engineer.

The proposal exceeds the parking requirements of the City Zoning Code by providing twenty-seven additional spaces. Further, the site layout does not include any tandem parking spaces. Tandem parking spaces may cause a heavier demand to be placed on guest parking spaces by the residents. Avoiding the use of tandem parking spaces further ensures that the number of provided spaces will adequately accommodate the proposed units.

Public / Neighborhood Notification

- This request was noticed in accordance with the requirements of the Chandler Land Use and Zoning Code.
- To comply with CDC social distancing guidelines, the applicant hosted a digital neighborhood meeting via Zoom on September 30, 2020. Five (5) households attended the virtual meeting and had general questions about the proposal and buffer between the multi-family and the existing subdivision to the south. No opposition was expressed.
- Planning staff has received one phone call from a Horizon resident, whose home fronts Senate Street, with traffic concerns from the proposed development. Staff stated Senate Street was built for access to the subject site and a majority of proposed traffic from the new development will use the McQueen Road entry.
- As of writing this memo, Planning staff has not received any opposition regarding the request.

Airport Commission Conflict Evaluation

Airport Commission meeting November 18, 2020.
Motion to find conflict with existing or planned airport operations.

In Favor: 5 Opposed: 0 Absent: 2 (Siegel, Kruse)

The Airport Commission reviewed the request in accordance with the Airport Conflicts Evaluation Process. The Airport Planning Administrator has issued a conflicts evaluation report indicating that the Airport Commission

determined that the proposed development does constitute a conflict with existing or planned airport operations. A copy of the Airport Planning Administrator's report detailing the Airport Commission's findings is attached to this memo. The Airport Commission's recommended mitigation measures to address the operational conflict are included as stipulations of the rezoning.

Planning and Zoning Commission Vote Report

Planning and Zoning Commission meeting January 6, 2020.
Motion to Approve.

In Favor: 6 Opposed: 0 Absent: 1 (Heumann)

Recommended Conditions of Approval

Rezoning

Planning and Zoning Commission recommends the City Council approve rezoning from AG-1 to PAD multi-family residential, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Elux at McQueen" and kept on file in the City of Chandler Planning Division, in File No. PLH19-0063, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.

2. The multi-family apartment manager shall display, in a conspicuous place within the rental office, a map illustrating the location of the development Elux at McQueen in the context of the Chandler Airpark Area Plan. The map shall identify the Airport Impact Overlay District, the noise contours and over flight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by Chandler City Council (Resolution No. 2590, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan. Such map or aerial photo shall be a minimum size of 24" x 36". Compliance with this condition shall be demonstrated by the property owner or multifamily apartment manager submitting to the Zoning Administrator of a signed affidavit and photograph that acknowledges such map is on display prior to beginning any rental activity.

3. Prior to execution of any lease, prospective apartment tenants shall be given written disclosure in their lease and in a separately signed disclosure statement acknowledging that this apartment community is located proximate to the Chandler Municipal Airport that includes a heliport, aircraft engine testing facility, and an aircraft storage facility, that an avigational easement exists on the property, the property lies within the Chandler Municipal Airport Impact Overlay District, and that the property is subject to aircraft noise and over flight activity. The requirement for such disclosure shall be confirmed in an avigation notice covenant that runs with the land and is recorded with the Maricopa County Recorder prior to issuance of the first building permit for this development.

4. The developer shall provide the city with an avigational easement over the subject property in accordance with Section 3004 of the City of Chandler Zoning Code.

5. Prior to building permit issuance for any structures the developer shall provide a DETERMINATION OF NO HAZARD TO AVIATION approval as issued by the FAA after filing an FAA Form 7460, Notice of Proposed Construction or Alteration.

6. The Final Plat shall contain the following statement on the cover sheet in a prominent location and in large text: "This property is located within the Chandler Municipal Airport Impact Overlay District and is subject to aircraft noise and frequent over flight activity, and is encumbered by an avigational easement to the City of Chandler."

7. All leases at Elux at McQueen shall provide that all questions, concerns, or complaints any tenant may have about the Chandler Municipal Airport or the operation of aircraft landing at, taking off from, or operating at or on Chandler Municipal Airport shall be directed solely to the manager of Elux at McQueen development and not to the Chandler Municipal Airport, the City of Chandler, the FAA, any aircraft owner, or any pilot. All leases shall also provide that it shall be within the sole and absolute discretion of the manager of Elux at McQueen (and not the tenant) to determine (after the manager's due consideration of all airport related acknowledgments and disclosures

that are required by the Zoning Stipulations and consideration of all information known to Elux at McQueen's Manager) whether or not, when, and how to communicate any tenants question, concern, or complain to the manager of the Chandler Municipal Airport.

8. All apartment buildings shall be designed and built to achieve an interior noise level not to exceed 45 decibels (Ldn) from aircraft noise. A professional acoustical consultant, architect or engineer shall certify that the project's construction plans are in conformance with this condition.

9. In the event the multi-family residential is platted to allow unit ownership, prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that this subdivision lies within the Chandler Municipal Airport Impact Overlay District, as specified in the Chandler Zoning Code. The disclosure statement shall acknowledge the proximity of this subdivision to the Chandler Airport and that an avigational easement exists and/or is required on the property, and further, shall acknowledge that the property is subject to aircraft noise and overflight activity and other externalities. This document signed by the homebuyer shall be recorded with Maricopa County Recorder's Office upon sale of the property. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot/unit property deeds shall include a disclosure statement outlining that the site is adjacent to or nearby an existing municipal airport, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. This responsibility for notice rests with the subdivider/homebuilder/developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

10. Multi-family dwelling units shall be permitted up to a maximum density of 12.6 dwelling units per acre.

11. The developer shall be responsible for the design and installation of a traffic signal at the intersection of McQueen Road and Armstrong Way during the initial phase of construction.

12. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.

13. The developer shall be required to install landscaping in the arterial street median(s) adjoining this project. In the event that the landscaping already exists within such median(s) the developer shall be required to upgrade such landscaping to meet current City Standards.

14. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.

15. Minimum setbacks shall be as provided below and further detailed in the development booklet:

Property Line Location	Minimum Building Setback
McQueen Road	50'
North Property Line	10'
East Property Line	10'
South Property Line	35'

Preliminary Development Plan
Planning and Zoning Commission recommends City Council approve the Preliminary Development Plan, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled, "Elux at McQueen" and kept on file in the City of Chandler Planning Division, in File No. PLH19-0063, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by Chandler City Council.

2. Landscaping plans (including for open spaces, retention, rights-of-way, and street medians) shall be approved by the Planning Administrator.

3. All mechanical equipment, including HVAC, utility meters, etc. shall be screened from view by material(s) that are architecturally integrated and consistent with the proposed buildings.

4. Signage shall substantially be as shown within the submitted Development Booklet and shall follow all applicable criteria of the City of Chandler Sign Code.

5. Preliminary Development Plan approval does not constitute Final Development Plan approval; compliance with the details required by all applicable codes and conditions of the City of Chandler and this Preliminary Development Plan shall apply.

6. The site shall be maintained in a clean and orderly manner.

7. The landscaping in all open-spaces shall be maintained by the property owner or property owners' association, and shall be maintained at a level consistent with or better than at the time of planting.

8. The landscaping in all rights-of-way shall be maintained by the adjacent property owner or property owners' association.

9. Roadway-style signs shall be installed at multiple locations as depicted in the development booklet that identify the presence of low flying aircraft.

Preliminary Plat
Planning and Zoning Commission recommends the City Council approve the Preliminary Plat, subject to the following condition:

1. Approval by the City Engineer and Planning Administrator with regard to the details of all submittals required by code or condition.

Attachments

Ordinance No. 4958
Vicinity Maps
Airport Conflict Evaluation Report
Development Booklet

ORDINANCE NO. 4958

AN ORDINANCE OF THE CITY OF CHANDLER, ARIZONA, AMENDING THE ZONING CODE AND MAP ATTACHED THERETO, BY REZONING A PARCEL FROM AGRICULTURAL (AG-1) TO PLANNED AREA DEVELOPMENT (PAD) FOR MULTI-FAMILY RESIDENTIAL IN CASE PLH19-0063 (ELUX AT MCQUEEN) LOCATED AT THE SOUTHEAST CORNER OF MCQUEEN ROAD AND SANTAN 202 FREEWAY WITHIN THE CORPORATE LIMITS OF THE CITY OF CHANDLER, ARIZONA; PROVIDING FOR THE REPEAL OF CONFLICTING ORDINANCES; AND PROVIDING FOR PENALTIES.

WHEREAS, an application for rezoning certain property within the corporate limits of Chandler, Arizona, has been filed in accordance with Article XXVI of the Chandler Zoning Code; and

WHEREAS, the application has been published in a local newspaper with general circulation in the City of Chandler, giving fifteen (15) days' notice of time, place, and date of public hearing; and

WHEREAS, a notice of such hearing was posted on the property at least seven (7) days prior to the public hearing; and

WHEREAS, a public hearing was held by the Planning and Zoning Commission as required by the Zoning Code.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Chandler, Arizona, as follows:

Section 1. Legal Description of Property:

EXHIBIT 'A'

Said parcel is hereby rezoned from AG-1 to PAD for multi-family residential, subject to the following conditions:

1. Development shall be in substantial conformance with the Development Booklet, entitled "Elux at McQueen" and kept on file in the City of Chandler Planning Division, in File No. PLH19-0063, modified by such conditions included at the time the Booklet was approved by the Chandler City Council and/or as thereafter amended, modified or supplemented by the Chandler City Council.

2. The multi-family apartment manager shall display, in a conspicuous place within the rental office, a map illustrating the location of the development Elux at McQueen in the context of the Chandler Airpark Area Plan. The map shall identify the Airport Impact Overlay District, the noise contours and

over flight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by Chandler City Council (Resolution No. 2590, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan. Such map or aerial photo shall be a minimum size of 24" x 36". Compliance with this condition shall be demonstrated by the property owner or multifamily apartment manager submitting to the Zoning Administrator of a signed affidavit and photograph that acknowledges such map is on display prior to beginning any rental activity.

3. Prior to execution of any lease, prospective apartment tenants shall be given written disclosure in their lease and in a separately signed disclosure statement acknowledging that this apartment community is located proximate to the Chandler Municipal Airport that includes a heliport, aircraft engine testing facility, and an aircraft storage facility, that an avigational easement exists on the property, the property lies within the Chandler Municipal Airport Impact Overlay District, and that the property is subject to aircraft noise and over flight activity. The requirement for such disclosure shall be confirmed in an avigation notice covenant that runs with the land and is recorded with the Maricopa County Recorder prior to issuance of the first building permit for this development.

4. The developer shall provide the city with an avigational easement over the subject property in accordance with Section 3004 of the City of Chandler Zoning Code.

5. Prior to building permit issuance for any structures the developer shall provide a DETERMINATION OF NO HAZARD TO AVIATION approval as issued by the FAA after filing an FAA Form 7460, Notice of Proposed Construction or Alteration.

6. The Final Plat shall contain the following statement on the cover sheet in a prominent location and in large text: "This property is located within the Chandler Municipal Airport Impact Overlay District and is subject to aircraft noise and frequent over flight activity, and is encumbered by an avigational easement to the City of Chandler."

7. All leases at Elux at McQueen shall provide that all questions, concerns, or complaints any tenant may have about the Chandler Municipal Airport or the operation of aircraft landing at, taking off from, or operating at or on Chandler Municipal Airport shall be directed solely to the manager of Elux at McQueen development and not to the Chandler Municipal Airport, the City of Chandler, the FAA, any aircraft owner, or any pilot. All leases shall also provide that it shall be within the sole and absolute discretion of the manager of Elux at McQueen (and not the tenant) to determine (after the manager's due consideration of all airport related acknowledgments and disclosures that are required by the Zoning Stipulations and consideration of all information

known to Elux at McQueen's Manager) whether or not, when, and how to communicate any tenants question, concern, or complain to the manager of the Chandler Municipal Airport.

8. All apartment buildings shall be designed and built to achieve an interior noise level not to exceed 45 decibels (Ldn) from aircraft noise. A professional acoustical consultant, architect or engineer shall certify that the project's construction plans are in conformance with this condition.

9. In the event the multi-family residential is platted to allow unit ownership, prior to the time of making any lot reservations or subsequent sales agreements, the subdivider/homebuilder/developer shall provide a written disclosure statement, for the signature of each buyer, acknowledging that this subdivision lies within the Chandler Municipal Airport Impact Overlay District, as specified in the Chandler Zoning Code. The disclosure statement shall acknowledge the proximity of this subdivision to the Chandler Airport and that an avigational easement exists and/or is required on the property, and further, shall acknowledge that the property is subject to aircraft noise and overflight activity and other externalities. This document signed by the homebuyer shall be recorded with Maricopa County Recorder's Office upon sale of the property. The "Public Subdivision Report", "Purchase Contracts", CC&R's, and the individual lot/unit property deeds shall include a disclosure statement outlining that the site is adjacent to or nearby an existing municipal airport, and the disclosure shall state that such uses are legal and should be expected to continue indefinitely. This responsibility for notice rests with the subdivider/homebuilder/developer and shall not be construed as an absolute guarantee by the City of Chandler for receiving such notice.

10. Multi-family dwelling units shall be permitted up to a maximum density of 12.6 dwelling units per acre.

11. The developer shall be responsible for the design and installation of a traffic signal at the intersection of McQueen Road and Armstrong Way during the initial phase of construction.

12. Completion of the construction of all required off-site street improvements including but not limited to paving, landscaping, curb, gutter and sidewalks, median improvements and street lighting to achieve conformance with City codes, standard details, and design manuals.

13. The developer shall be required to install landscaping in the arterial street median(s) adjoining this project. In the event that the landscaping already exists within such median(s) the developer shall be required to upgrade such landscaping to meet current City Standards.

14. Right-of-way dedications to achieve full half-widths, including turn lanes and deceleration lanes, per the standards of the Chandler Transportation Plan.

15. Minimum setbacks shall be as provided below and further detailed in the development booklet:

Property Line Location	Minimum Building Setback
McQueen Road	50’
North Property Line	10’
East Property Line	10’
South Property Line	35’

Section 2. The Planning Division of the City of Chandler is hereby directed to enter such changes and amendments as may be necessary upon the Zoning Map of said Zoning Code in compliance with this Ordinance.

Section 3. All ordinances or parts of ordinances in conflict with the provisions of this Ordinance, or any parts hereof, are hereby repealed.

Section 4. In any case, where any building, structure, or land is used in violation of this Ordinance, the Planning Division of the City of Chandler may institute an injunction or any other appropriate action in proceeding to prevent the use of such building, structure, or land.

Section 5. If any section, subsection, sentence, clause, phrase or portion of this Ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, then this entire ordinance is invalid and shall have no force or effect.

Section 6. A violation of this Ordinance shall be a Class 1 misdemeanor subject to the enforcement and penalty provisions set forth in Section 1-8.3 of the Chandler City Code. Each day a violation continues, or the failure to perform any act or duty required by this Ordinance or the Zoning Code, shall constitute a separate offense.

INTRODUCED AND TENTATIVELY APPROVED by the City Council of the City of Chandler, Arizona, this ____ day of _____, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

PASSED AND ADOPTED by the City Council of the City of Chandler, Arizona, this _____ day of _____, 2021.

ATTEST:

_____ _____
CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Ordinance No. 4958 was duly passed and adopted by the City Council of the City of Chandler, Arizona, at a regular meeting held on the ____ day of _____, 2021, and that a quorum was present thereat.

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY TA

Published:

EXHIBIT 'A'

LEGAL DESCRIPTION

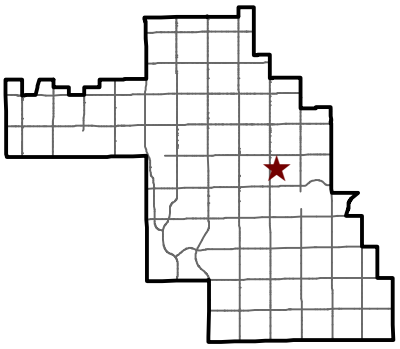
PARCEL NO. 1:
THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 2;
THENCE NORTH 404.5 FEET TO THE POINT OF BEGINNING;
THENCE EAST, 350.00 FEET;
THENCE NORTH 125.00 FEET;
THENCE WEST, 350.00 FEET;
THENCE SOUTH, 125.00 FEET TO THE POINT OF BEGINNING; AND
EXCEPT THAT PORTION CONVEYED TO THE STATE OF ARIZONA, BY AND THROUGH ITS DEPARTMENT OF TRANSPORTATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2003–1550420, MARICOPA COUNTY, RECORDS; AND
EXCEPT THAT PORTION CONVEYED TO THE MARICOPA COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2004–0003258, MARICOPA COUNTY RECORDS; AND
EXCEPT THE WEST 40.00 FEET OF SAID SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2.
PARCEL NO. 2:
THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THAT PORTION CONVEYED TO THE STATE OF ARIZONA, BY AND THROUGH ITS DEPARTMENT OF TRANSPORTATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2002–1329840, MARICOPA COUNTY, RECORDS.

NOTE: R/W DEDICATION PER DOC. 2018–0410566, MCR (NOT SHOWN ON DEED)

Tract W, HORIZON, according to Book 1410 of Maps, page 9 and Affidavit of Correction recorded in Document No. 2018-877649, records of Maricopa County, Arizona.

PLH19-0063/PLT19-0055 Elux at McQueen

Proposed Project Details
REZONE/PDP/Pre-Plat
12.87 Acres
162 Unit Multi-Family
12.59 dwelling units per acre (du/ac)



Chandler Arizona
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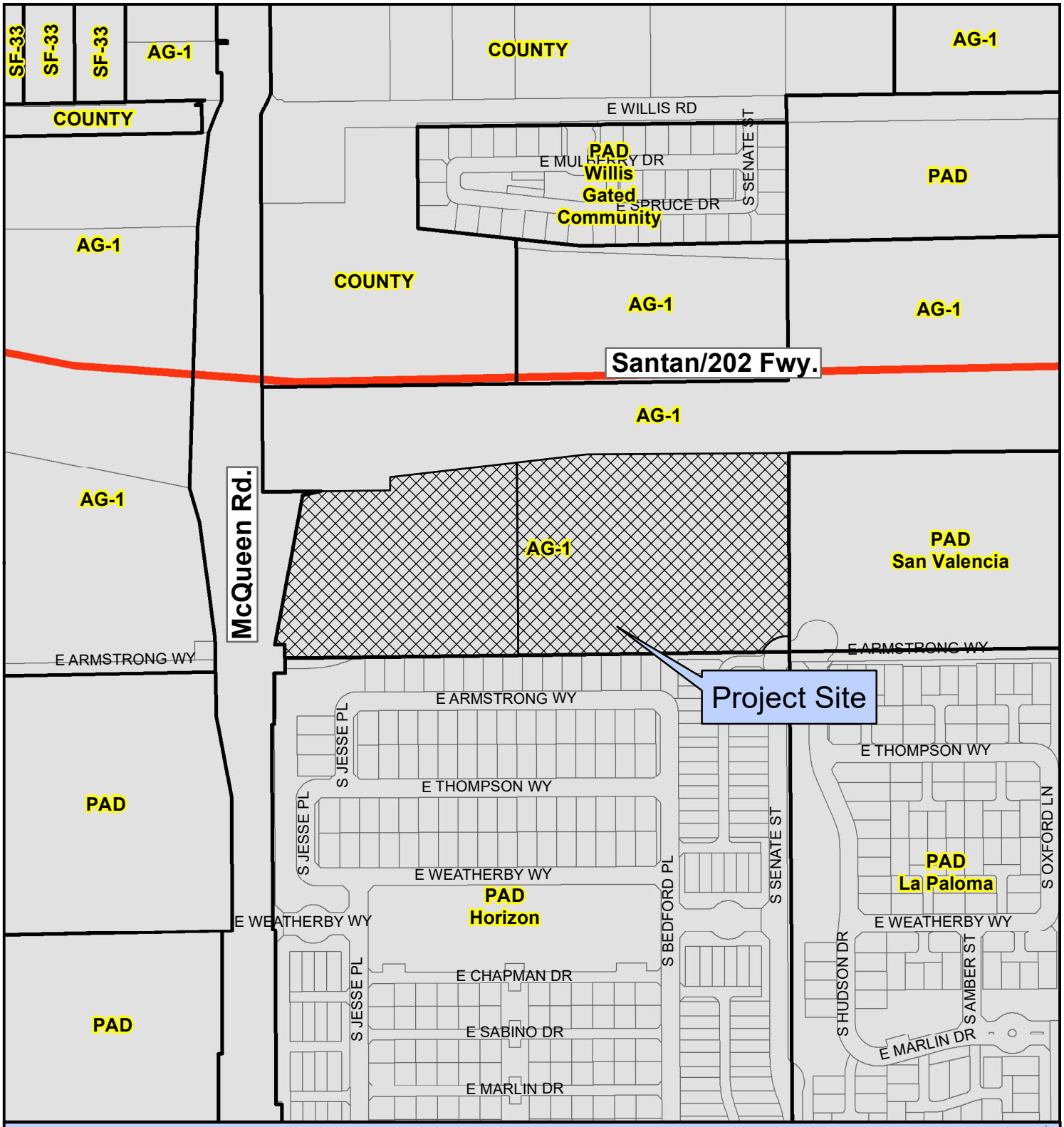
City of Chandler Planning Division
chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning



Proposed Project Details
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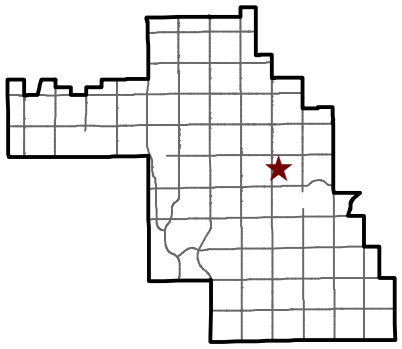

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chandleraz.gov/planning
For more information visit:
https://gis.chandleraz.gov/planning

CHANDLER
arizona

MEMORANDUM **Airport - Memo No. 21-017**

DATE: November 19, 2020

TO: Kevin Mayo, Planning Administrator

FROM: Chris Andres, Airport Planning Administrator *CA*

SUBJECT: Airport Conflict Evaluation
PLH19-0063/PLT19-0055 Elux at McQueen
Southeast Corner of Loop 202 and McQueen Road

At their November 18, 2020 meeting, the Chandler Airport Commission ("Commission") discussed the Elux at McQueen residential project located at the southeast corner of Loop 202 and McQueen Road.

Finding: The Commission determined the proposed development **constitutes a conflict** with existing or planned airport uses.

Conflict(s) Cited: The proposed development contains 162 multifamily residential units and the site will experience aviation noise and vibration impact from aircraft in the normal traffic pattern and arrival and departure routes. Approximately 324 residents would be expected to be exposed to aircraft noise at this location.

Conflict Resolution(s): Retaining the current non-residential land use is the preferred corrective action.

Physical corrective actions: (1) construction of all units built with noise attenuation construction materials and techniques to reduce the ambient interior noise levels to less than 45 decibels; (2) installation of at one roadway-style sign at the site's entrance identifying the presence of low flying aircraft.

Administrative corrective actions: (1) all prospective tenants should be required to sign separate disclosure statements, acknowledging (i) the proximity to the Chandler Airport, including the heliport, (ii) the potential for impact from aircraft noise and vibrations, and (iii)) proximity to an aircraft engine testing facility and aircraft storage; (2) dedication of an avigational easement to the City; (3) display of a large size map in the management/sales

office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (4) submittal of a signed affidavit and photograph of the prior referenced map display; (5) inclusion of an affirmative disclosure statement on the final plat; (6) requirement that all rental leases shall provide that all questions, concerns, or complaints any tenant may have about airport operations shall be directed solely at the multifamily apartment manager; (7) requirement that all rental leases shall provide that it shall be within the sole and absolute discretion of the multifamily apartment manager (and not the tenant) to determine whether or not, when and how to communicate any tenant's question concern, or complaint to the Chandler Municipal Airport Administrator.

(8) If the development is converted to condominiums in the future, all prospective purchasers of property in the subdivision should be required to sign separate disclosure statements, acknowledging (i) the proximity to the Chandler Airport, including the heliport, (ii) proximity to aviation-related activities including aircraft engine testing and aircraft storage, and (iii) the potential for impact from aviation noise and vibrations; (9) all prospective purchasers of property should be required to sign the disclosure statements before a purchase contract is signed and again at the transaction closing; (10) dedication of an avigational easement to the City; (11) display of a large size map in the onsite sales office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (12) submittal of a signed affidavit and photograph of the prior referenced map display; (13) inclusion of an affirmative disclosure statement on the final plat; (14) inclusion of the physical and administrative corrective actions in the Subdivision Public Report that is submitted to the Arizona Department of Real Estate.

Commission Members in Attendance: Chairman Dave Sperling, Vice Chair Chris Hawley, Sherri Koshiol, Robert Bozelli and Sky McCorkle were in attendance. This attendance represented a quorum.

The Commission voted 5-0 to forward a report to the Planning Administrator indicating the finding noted above.

cc: David De La Torre, Planning Manager
Lauren Schumann, Senior City Planner
Attachment: Airport Conflict Evaluation

CHANDLER arizona

MEMORANDUM **Airport - Memo No. 21-016**

Date: November 18, 2020

To: Chandler Airport Commission

Through: Joshua H. Wright, Assistant City Manager

From: Chris Andres, Airport Planning Administrator *CA*

Subject: Agenda Item 4.b – Airport Conflict Evaluation
PLH19-0063 & PLT19-0055 Elux at McQueen
Southeast Corner of McQueen Road and the Loop 202

Recommendation

Staff recommends the Airport Commission ("Commission") present an Airport Conflict Evaluation (ACE) report to the Zoning Administrator and City Council with a finding of "conflict with airport uses" for the proposed Elux at McQueen multifamily development.

Background

The approximately 12.87 acre site at the southeast corner of McQueen Road and the Loop 202 freeway (*Exhibit A - Vicinity Map, Exhibit B - Property Location*) and is zoned Agricultural (AG-1). Adjacent land uses include the Loop 202 freeway to the north; a multifamily residential subdivision to the east; a single family residential subdivision to the south; McQueen Road, and vacant land to the west.

The site is approximately 0.5 miles to the northwest of the Airport property line and is not located within any noise contours *(Exhibit A- Vicinity Map)*.

The proposed project is an approximately 162 unit multifamily residential development with 12.59 dwelling units per acre (du/ac) *(Exhibit C - Site Plan)*. The Applicant's request is to:

- Rezone from Agricultural (AG-1) to Planned Area Development (PAD) zoning for multifamily residential, Preliminary Plat, and Preliminary Development Plan (PDP) for site layout and architecture.

The City of Chandler General Plan designates the property for Neighborhoods and Growth Area within the Chandler Airpark. The Chandler Airpark Area Plan designates the property as High Density Residential (*Exhibit D – Chandler Airpark Area Plan Land Use Plan)*. Goal 5.0 of the Land Use Element of the Chandler Airpark Area Plan is "to protect the Airport from incompatible land uses" and Policy 5.1 states that "the City shall consider flight tracks, noise patterns, and Airport safety zones when determining the appropriateness of proposed developments."

Analysis

The proposed multifamily residential land use would add 162 dwelling units under the flight traffic pattern, thereby increasing the number of residents exposed to aircraft noise. Per the Chandler Airpark Area Plan (page 2-9), the planned population per dwelling unit for High Density Residential is 2.0. Based on the development intensity, approximately 324 residents would be expected to experience aircraft noise at this location.

The property is not located within an airport noise contour and will experience daily overflights from aircraft in the normal traffic pattern.

The proposed development will experience daily overflights from aircraft in the normal airport traffic pattern (Exhibit E – Flight Tracks). Flight operations are typically between sunrise and sunset and, at this location, the flight traffic pattern altitude is approximately 800 feet above ground level. Outdoor activities are especially susceptible to overflight noise, depending on the nature of the activity. Residences under or near the flight traffic pattern are a significant source of noise complaints for the Airport.

Based on the maximum allowable building heights, the proposed development does not appear to pose a hazard to flight safety or be an airspace obstruction.

Due to the site's proximity to the Airport, the developer will need to file a Notice of Proposed Construction (FAA Form 7460-1) with the Federal Aviation Administration for the final structure heights, including all rooftop antennas, parapets, light poles, other permanent objects, and temporary construction equipment. The form can be submitted online at https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

Airport Conflict Evaluation Process

In January 2002, the City Council adopted an Airport Conflicts Evaluation (ACE) Process policy requiring any zoning changes within the nine-square mile Chandler Airpark Area to be reviewed by the Commission to determine if the use and/or development will be a conflict with current and future airport operations. The ACE policy outlines the Commission's tasks as they relate to this review:

1. The Commission's determination as to whether conflicts exist between the proposed development and airport uses;
2. If conflicts exist, the specific areas of conflict;
3. If conflicts exist, a statement of corrective actions which can be taken, if there are any;
4. The Commission Members voting in support of the Commission's determination and those members voting in opposition to the Commission's determination.

Airport staff provides the Commission with information and a recommendation regarding the proposed project and the conflict evaluation process. Staff will compile and forward an ACE report that summarizes the Commission's discussion and findings to the Zoning Administrator. Planning staff will report the Commission's findings regarding potential for airport conflicts to Planning and Zoning Commission and to City Council.

Findings

1. *The Airport Commission's determination as to whether conflicts exist between the proposed development and airport uses*. **A conflict exists between the proposed development and proposed airport uses.**

2. *If conflicts exist, the specific areas of conflict*. **The proposed development contains 162 multifamily residential units and the site will experience aviation noise and vibration impact from aircraft in the normal traffic pattern and arrival and departure routes. Approximately 324 residents would be expected to be exposed to aircraft noise at this location.**

3. *If conflicts exist, a statement of corrective actions which can be taken, if there are any*. **Retaining the current non-residential land use is the preferred corrective action.**

   Physical corrective actions: (1) construction of all units built with noise attenuation construction materials and techniques to reduce the ambient interior noise levels to less than 45 decibels; (2) installation of at one roadway-style sign at the site's entrance identifying the presence of low flying aircraft.

   Administrative corrective actions: (1) all prospective tenants should be required to sign separate disclosure statements, acknowledging (i) the proximity to the Chandler Airport, including the heliport, (ii) the potential for impact from aircraft noise and vibrations, and (iii) proximity to an aircraft engine testing facility and aircraft storage; (2) dedication of an avigational

easement to the City; (3) display of a large size map in the management/sales office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (4) submittal of a signed affidavit and photograph of the prior referenced map display; (5) inclusion of an affirmative disclosure statement on the final plat; (6) requirement that all rental leases shall provide that all questions, concerns, or complaints any tenant may have about airport operations shall be directed solely at the multifamily apartment manager; (7) requirement that all rental leases shall provide that it shall be within the sole and absolute discretion of the multifamily apartment manager (and not the tenant) to determine whether or not, when and how to communicate any tenant's question concern, or complaint to the Chandler Municipal Airport Administrator.

(8) If the development is converted to condominiums in the future, all prospective purchasers of property in the subdivision should be required to sign separate disclosure statements, acknowledging (i) the proximity to the Chandler Airport, including the heliport, (ii) proximity to aviation-related activities including aircraft engine testing and aircraft storage, and (iii) the potential for impact from aviation noise and vibrations; (9) all prospective purchasers of property should be required to sign the disclosure statements before a purchase contract is signed and again at the transaction closing; (10) dedication of an avigational easement to the City; (11) display of a large size map in the onsite sales office identifying the Airport Impact Overlay District, the noise contours and overflight patterns as depicted in Exhibit 6A in the FAR Part 150 Noise Compatibility Study document as adopted by the Chandler City Council (Resolution No. 2950, 11-5-98), and the noise contours as identified in the Chandler Airpark Area Plan; (12) submittal of a signed affidavit and photograph of the prior referenced map display; (13) inclusion of an affirmative disclosure statement on the final plat; (14) inclusion of the physical and administrative corrective actions in the Subdivision Public Report that is submitted to the Arizona Department of Real Estate.

4. *The Airport Commission Members voting in support of the Airport Commission's determination and those members voting in opposition to the Airport Commission's determination.* **This information will be determined through Commission discussion and action.**

Public Meetings

An online neighborhood meeting was held on Wednesday, September 30, 2020. No airport issues were identified by the attendees.

Proposed Motion

Move to present an Airport Conflict Evaluation (ACE) report to the Zoning Administrator and City Council with a finding of "conflict with airport uses" for the proposed Elux at McQueen multifamily residential development.

Attachments

A. Vicinity Map
B. Property Location
C. Site Plan
D. Chandler Airpark Area Plan Land Use Plan
E. Flight Tracks

Exhibit A: Vicinity Map

Exhibit B: Property Location

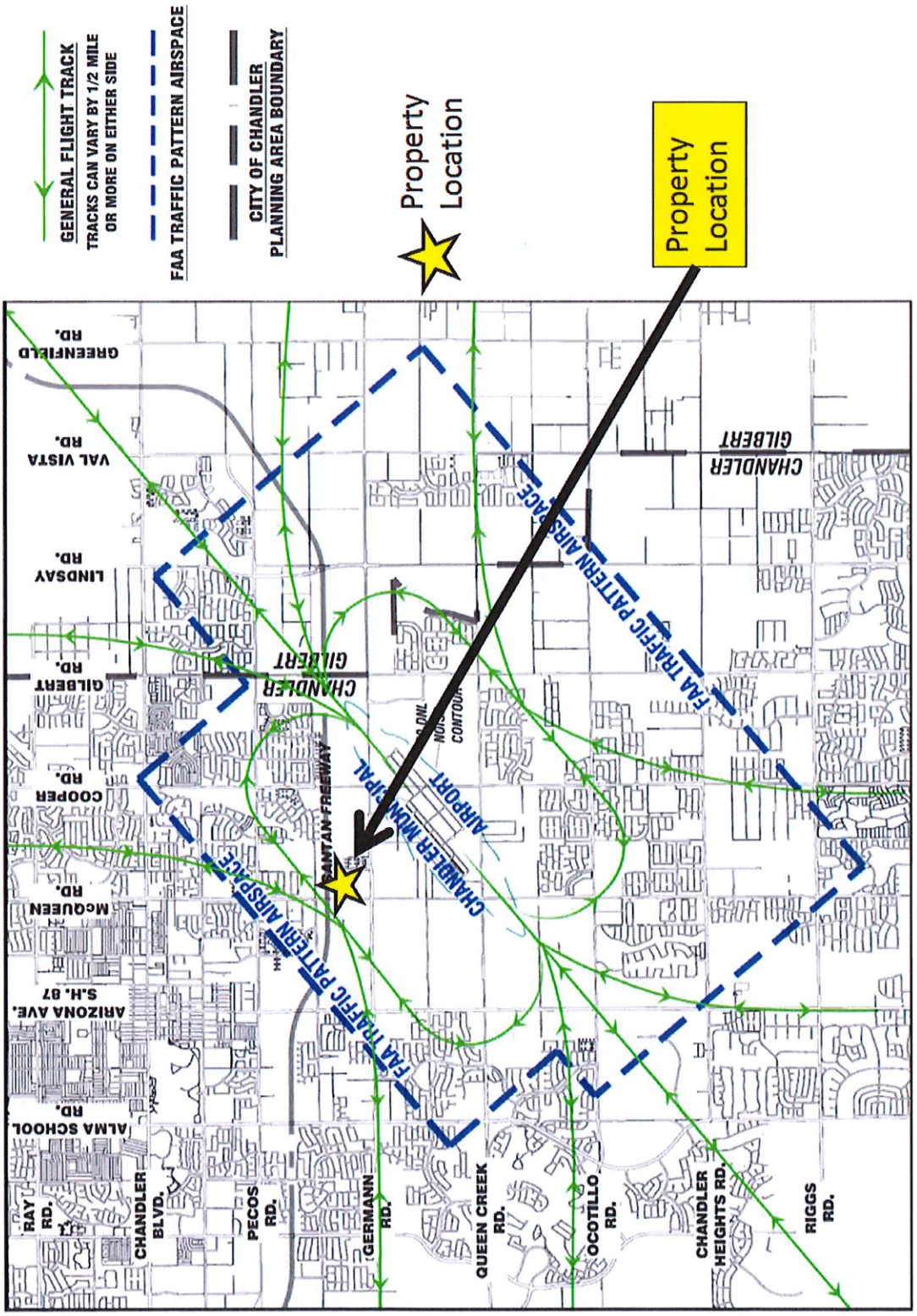


Exhibit C: Site Plan

Exhibit D: Chandler Airpark Area Plan Land Use Plan

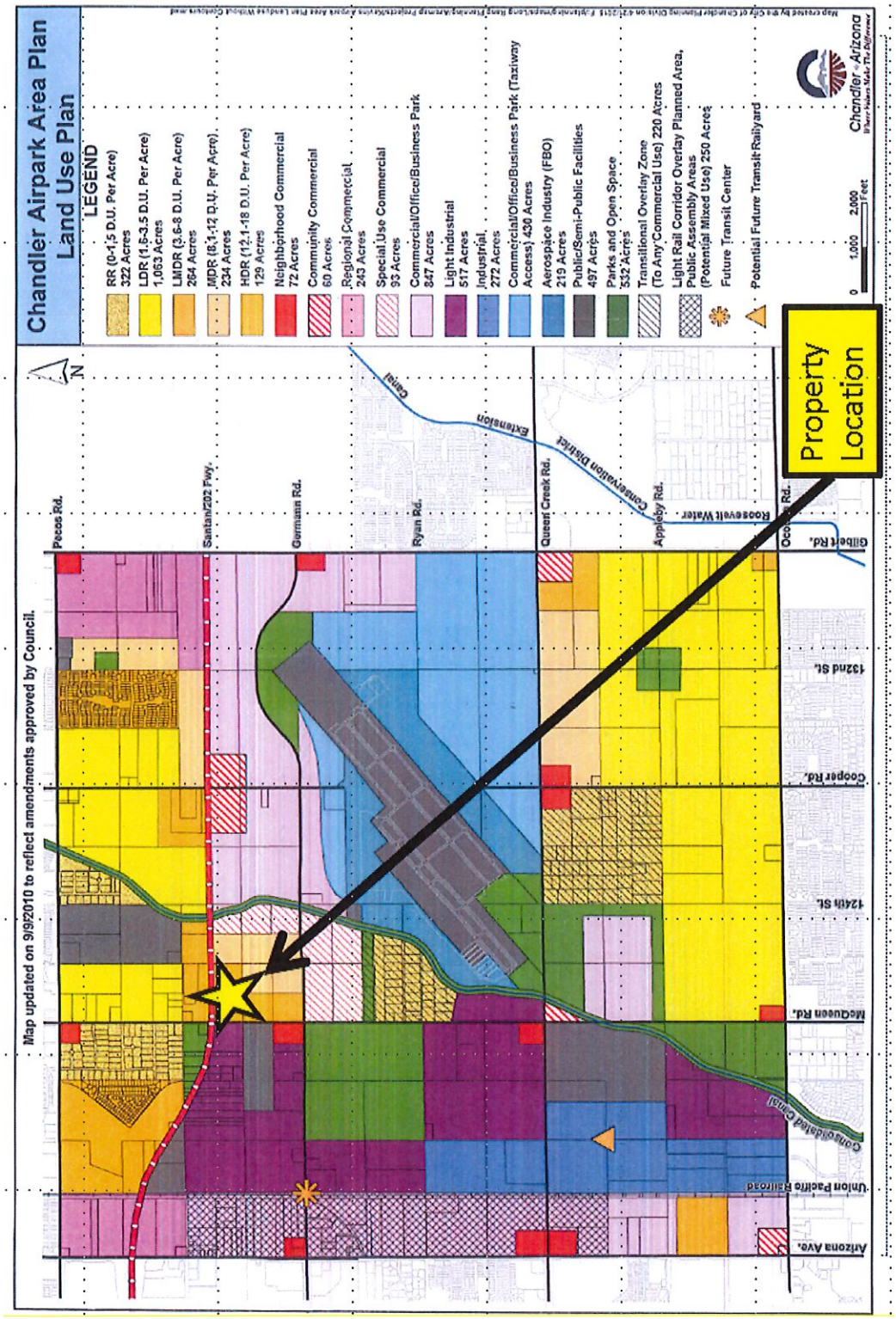
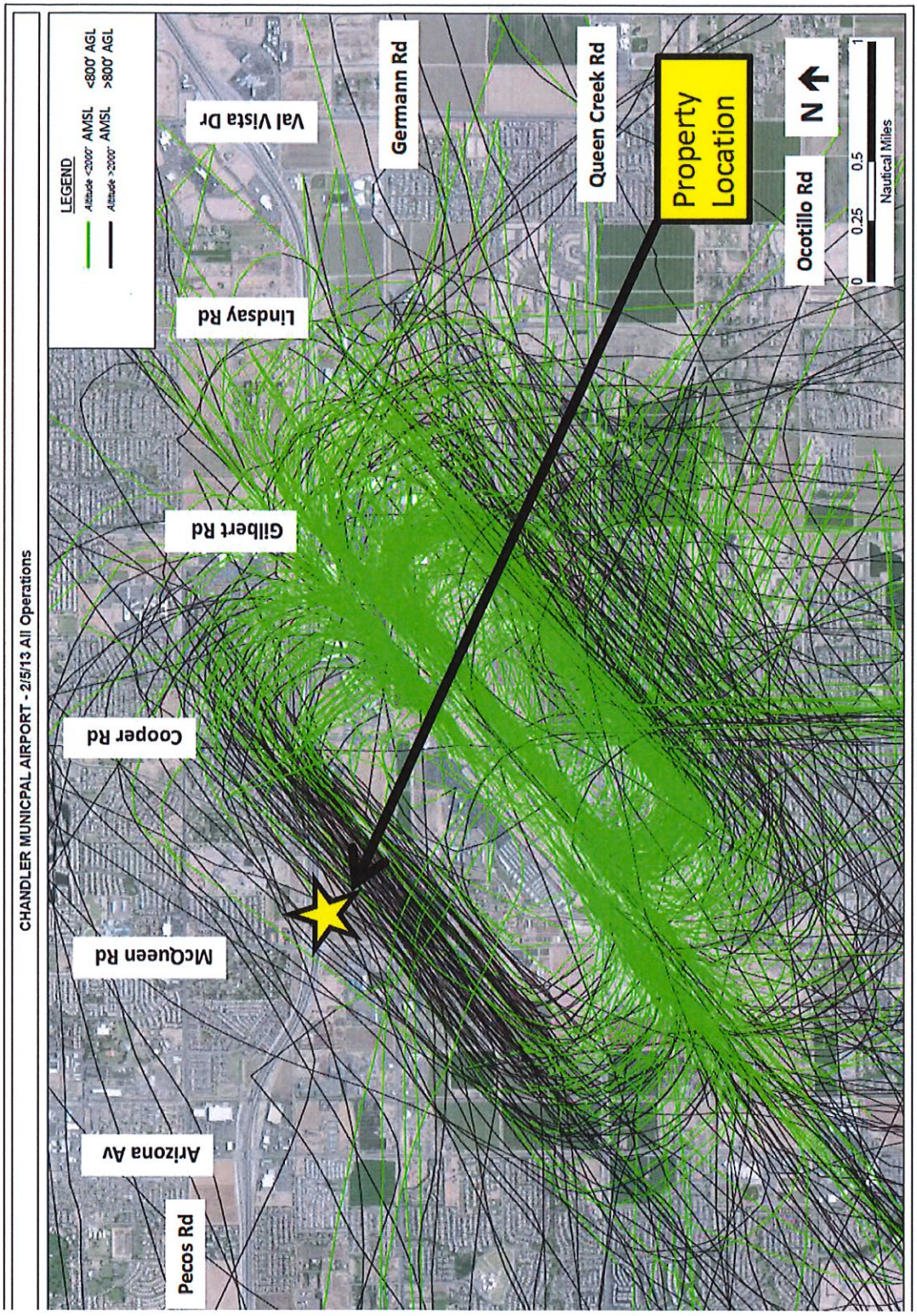


Exhibit E: Flight Tracks



ELUX AT MCQUEEN

A SNOWDEN COMMUNITY

Planned Area Development
Preliminary Development Plan & Preliminary Plat

DECEMBER 2020

PAD/ PDP CASE NO.: PLH19-0063
PRE-PLAT CASE NO.: PLT19-0055
1ST SUBMITTAL: NOVEMBER 15, 2019
2ND SUBMITTAL: OCTOBER 29, 2020
REVISED 2ND SUBMITTAL: DECEMBER 14, 2020

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PROJECT INFORMATION:

Project Location:	Southeast corner of McQueen Road and the Loop 202 San Tan Freeway
Request:	Planned Area Development (PAD), Preliminary Development Plan (PDP), & Preliminary Plat (PPT) PAD/ PDP Case No. PLH19-0063 PPT Case No. PLT19-0055
General Plan Designation:	Neighborhoods
Air Park Area Plan:	High Density Residential (HDR) (12.1-18.0 du/ac)
Existing Zoning:	AG-1
Proposed Zoning:	Planned Area Development (PAD)
Existing Use:	Vacant
Gross Area:	13.90 Ac.
Net Area:	12.87 Ac.
Maximum Proposed Dwelling Units:	162 Du.
Maximum Proposed Density:	12.59 Du./Ac.
Open Space:	3.95 Ac. (30.80% of Net)

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1 Introduction

Snowdon McQueen LLC is excited to bring ELUX at McQueen, an approximately 13.90-gross acre (12.87-net acre) community located in the City of Chandler (the "City") at the southeast corner of McQueen Road and the Loop 202 Santan Freeway. The housing product designed for ELUX at McQueen is relatively unique to the region and was developed through a creative research and development process. Snowdon McQueen LLC intends for the ELUX at McQueen (or the "Site") development to become a point of pride within the City, offering a distinct housing product and a uniquely themed community for current and future residents of the City of Chandler (See **Exhibit A: Vicinity Map**).

ELUX at McQueen is an ideally located residential development situated approximately two miles northwest of the Chandler Municipal Airport (the "Airport"), and adjacent to employment, commercial, recreational, municipal, and residential uses. The proximity of the Site to shopping and employment allows for the creation of a unique environment that responds to the housing needs of the surrounding area. ELUX at McQueen is anticipated to have one-hundred and sixty-two (162) single-family detached and attached units in a for rent community at an overall net density of approximately 12.59 du/ac.

This Site is an appropriate location to introduce this unique housing product and community. The proposed architectural character for ELUX at McQueen reflects the character of the vibrant and growing City. Additionally, throughout the community, thematic architectural and landscape elements will be designed and implemented to celebrate the modern, unique product and related land uses in the surrounding area. The quality and proposed aesthetics of ELUX at McQueen reflects Snowdon McQueen LLC's commitment to progressive community design and development.

2 Background

This project is proposing that approximately 13.90 gross acres be rezoned from AG-1 to PAD for a unique and high-quality residential development (See **Exhibit B: Existing & Proposed Zoning Map**). Simultaneous with the Rezoning request, this development is seeking a PDP approval for the site plan consisting of 162 detached and attached single-family for rent units. The proposed development is planned as a gated community and is planned to accommodate a net density of approximately 12.59 du/ac. This development meets the goals, policies, and intent of the General Plan and Area Plan, and is compatible with neighboring developments while providing an attractive presence in the area.

3 Request

In order to achieve this development on the Site, Snowdon McQueen LLC is requesting:

- The Site to be rezoned from AG-1 to Planned Area Development (PAD) for Residential;
- Approval of the Preliminary Development Plan (PDP); and,
- Approval of the Preliminary Plat (PPT).

4 General Plan & Area Plan Compliance

The City of Chandler General Plan designates the Site as Neighborhoods (See **Exhibit C: General Plan Land Use Map**). The Site's development as a single-family for rent community is consistent with the underlying General Plan land use designation of Neighborhoods. Given that the Site is located adjacent to employment uses to the west, the Santan Freeway to the north, and medium density housing to the

east, and is in close proximity to the Airport and a future transit center at Arizona Avenue and Germann Road, high density housing is appropriate on the Site. Further, much of the immediate area has either been developed or is currently being developed with a variety of single-family residential densities. The Site is also located within the Chandler Airpark Area Plan, which designates the Site as High Density Residential (HDR) (12.1-18 du/ac) (See **Exhibit D: Chandler Airpark Area Plan**). The Site is proposed to have 162 units at 12.59 du/net acre which is consistent with the Chandler Airpark designation of HDR.

The proposed development also incorporates a different product type in a for rent setting, which creates a diverse housing market without introducing a development so different as to be inappropriate or incompatible with the existing neighborhoods. The proposed architectural style and enhanced landscape elements will bring aesthetic diversity to the area with a unique yet authentic character.

5 Planned Area Development

The Site is currently zoned AG-1 and Snowdon McQueen LLC is requesting the Site be rezoned to PAD for residential uses and will adhere to the development standards stated herein. ELUX at McQueen will be a unique housing type promoting connectivity within the community and offering clubhouse amenities for residents. Complementary architectural style and details will be utilized throughout the community.

The proposed Development Plan will establish a community with pedestrian courtyards, private rear yards, and community amenities (See **Exhibit E: Development Plan** and **Exhibit F: Landscape Plan**). ELUX at McQueen will include a total of 162 residences at a net density of approximately 12.59 dwelling units per acre. The southern boundary of the site adjacent to existing development has been designed to include additional buffering between existing single-family residences and proposed units. The Site provides approximately 3.95 acres of open space, or 30.80% of the total development's net acreage (See **Exhibit G: Open Space Plan**). The open space has been dispersed throughout the Site to provide efficient retention as well as visual relief across the development. A 3,624 square-foot community clubhouse amenity is prominently featured within the community amenity area. The amenity area includes the clubhouse building, pool and spa, cabanas, barbeque, and seating areas. This amenity area will be easily accessible to all the residents of ELUX at McQueen via a six-foot (6') centralized sidewalk, supporting recreational activity and social interaction. As a major component of the community's identity, the clubhouse will complement the modern architectural style of the homes by using tile cladding, metal work on doors and windows, tempered glazing windows, and stucco finishes. Additionally, a second amenity area is provided on the eastern end of the development and includes a pickle ball court as well as shade features, turf areas, and site furnishings (See **Exhibit H: Amenity Plan**). This area is accessed by three (3), four (4), and five-foot (5') sidewalks surrounding and internal to the amenity. The community will have various sidewalks and pathways connecting residents to their homes, parking areas, open spaces, and community amenities and clubhouse (See **Exhibit I: Pedestrian Circulation Plan**).

The interior and exterior landscape theming of ELUX at McQueen will feature modern design elements and motifs which will help reflect the community's distinct style while maintaining an aesthetic balance with the surrounding area. The design of the perimeter walls will reflect the quality and character of the community (See **Exhibit J: Wall Plan** and **Exhibit K: Wall Details**). The primary gated entrance into the community is located off of McQueen Road. The community entrance will include a monument sign, accentuated with enhanced ornamental desert plantings organized in formal massings and patterns. A secondary access point for the community is proposed at the southeast corner of the development, connecting to Senate Street and Armstrong Way. Both the primary and secondary entryways will incorporate design elements such as CMU block raised planters, CMU block with stucco finishes, precast concrete caps, aluminum channel, and reverse pan channel lettering, to create a cohesive design (See

Exhibit L: Entry Plan & Details and **Exhibit M: Entry Monuments**). At the main entryway and at various points throughout the Site, low flying aircraft warning signs will be prominently displayed for residents and visitors (see **Exhibit N: Aircraft Warning Sign Plan**).

6 Housing Product

The ELUX at McQueen development is a single-family for rent product that lives like a traditional single-family residential home. These casita-style homes address the needs of modern families. The homes will be built with energy-efficient and sustainable construction technology. The proposed design of the development consists of 162 one and two-story, detached and attached residences to create a community that is attractively designed, aesthetically landscaped, and provides an appropriate use for the Site. The proposed development is planned as a gated community that will consist of approximately 162 residences at a net density of approximately 12.59 du/ac. The residences are a mix of one, two, and three bedrooms, with an appropriate mix of the residences being detached and attached in a duplex style. Unlike traditional apartment complexes, where most units are one and two bedrooms (typically 50-60% one bedrooms, 30-40% two bedrooms, and less than 10% three bedrooms), this project has an increased number of two- and three-bedroom residences (40% one bedrooms, 40 % two bedrooms, and 20% three bedrooms).

The residences are predominately grouped around pedestrian courtyards to create a sense of arrival, place, and connectivity within the greater context of the community (See **Exhibit O: Illustrative Rendering**). A unique feature is that every residence includes a private, enclosed rear yard which, in most cases, is nearly as wide as the residence itself. Small-scale pedestrian courtyards and outdoor seating areas are also provided to create a seamless and smooth transition between public and private portions of the community.

The amenity areas are designed to enhance the community identity and the quality of life of the residents by providing recreational opportunities and connectivity through the integration of effective and accessible internal open spaces. The amenity and theming elements have been integrated to maintain the overall character of the community. The primary amenity area (located at the southwest corner of the Site) will include a resort-style swimming pool and spa, seating areas for residents to relax and socialize, and a clubhouse with restroom facilities and resident amenities.

The product proposed for this Site represents a lifestyle choice, presenting future residents a unique living experience and an alternative housing choice to the traditional options of single-family residences or apartment complexes. This development combines the best elements of residential single-family living with multi-family-like lease terms and management. The combination of these elements creates a desirable residential option with upscale features and spacious indoor/outdoor living areas maintained by a professional management company, without the expense or HOA fees of a typical single-family development. The casita-style residences include one and two-story options, with many containing no more than one unit per building, creating a “single-family subdivision” feel throughout the development.

Due to the design of the ELUX at McQueen community, attached garages will not be provided for all units. Detached garages and covered parking spaces will be provided and internalized and screened from adjacent roadways. The garage elevations incorporate similar elements from the residence buildings to create a consistent design throughout the community. Parking canopy covers will be consistent with the building colors and will be architecturally integrated with the surrounding structures.

7 Proposed Development Standards

The following development standards are proposed for ELUX at McQueen:

Single-Family For Rent / Condo Plat	
PERIMETER BUILDING SETBACKS (SETBACKS SHOWN ARE MINIMUM REQUIREMENTS)	**SINGLE-FAMILY FOR RENT PRODUCT**
Adjacent to McQueen Road	50’
Adjacent to Loop 202 Freeway	10’
Adjacent to single-family uses	35’
Adjacent to multi-family uses	10’
INTERIOR BUILDING SETBACKS (SETBACKS SHOWN ARE MEASURED FROM PROPERTY LINE TO BUILDING FOUNDATION, UNLESS OTHERWISE STATED)	
Side	0’
Separation between principal buildings (min.)	6’
BUILDING STANDARDS	
Building height (max.)	2-stories, 30’
Lot Coverage (max.)	40%

(See **Exhibit P: Elevations & Floor Plans**)

8 Parking & Refuse

The ELUX at McQueen development provides 327 parking spaces. Of the 327 parking spaces, 77 will be enclosed garage spaces that reduce the visual impact and scale of the parking spaces. The garages also provide a buffer for the property against the Loop 202 to the north. Refuse enclosures are distributed throughout the Site (See **Exhibit Q: Street Sections** and **Exhibit R: Parking & Trash Location Plan**).

9 Grading and Drainage

There are no offsite flows that historically pass through the Site. The adjacent offsite streets and internal onsite streets will convey storm water to multiple surface retention basins and underground retention (See **Exhibit S: Preliminary Grading & Drainage Plan**).

10 Infrastructure Analysis

Onsite water and sewer mains will be private. A potable meter with a looped private water line will connect at McQueen Road and Senate Street. The 8” stub along McQueen Road will be utilized for sewer connection, and water service will be provided by the City of Chandler. Sewer service will also be provided by the City of Chandler.

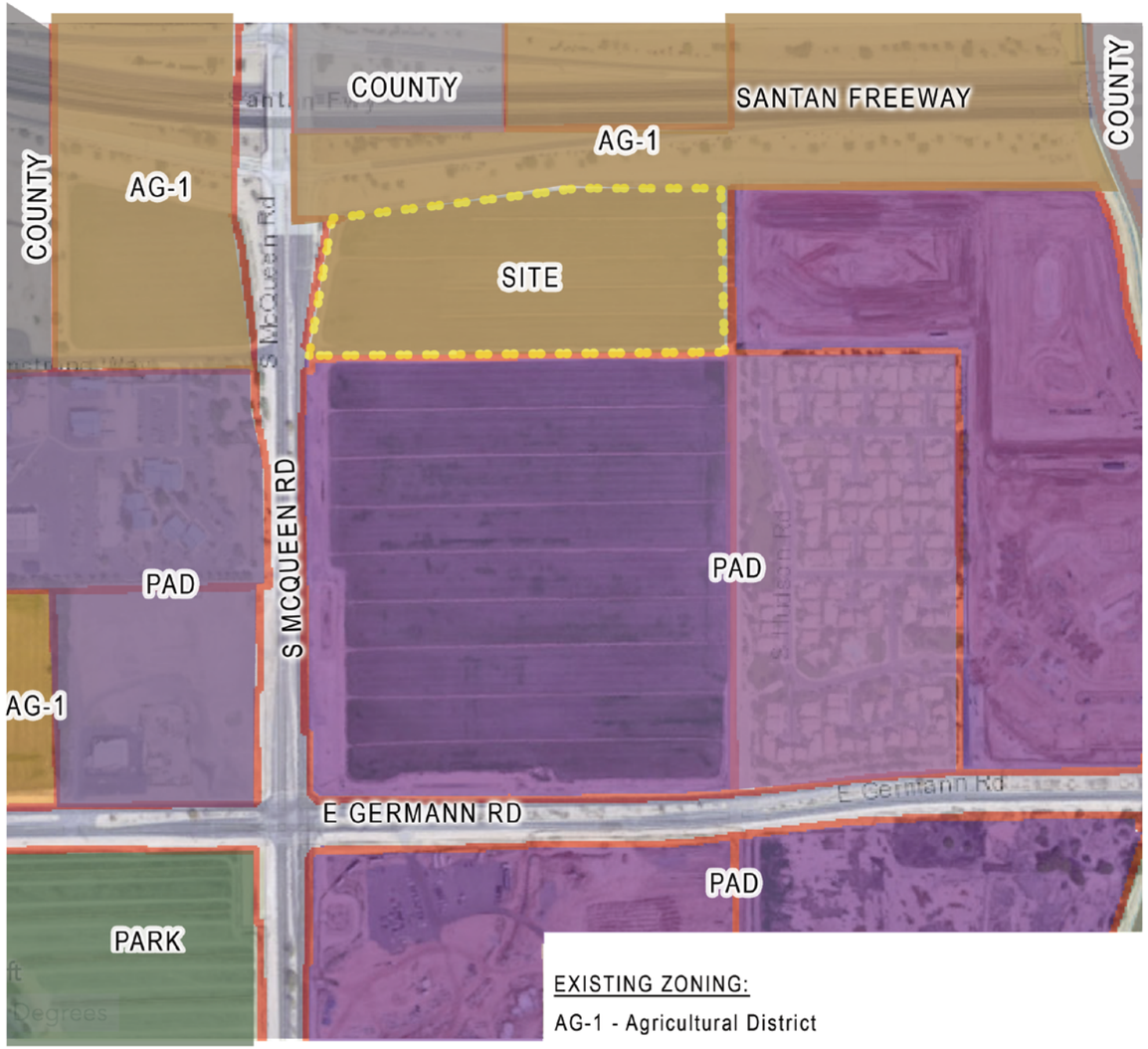
11 Preliminary Plat

See **Exhibit T: Preliminary Plat**.

12 Conclusion

ELUX at McQueen will be a high quality, sustainable, and dynamic development on this Site. The proposed PAD and PDP meet the goals of the City by providing a vibrant community that is visually attractive and provides a unique single-family for rent product. Further, ELUX at McQueen will provide additional support to the existing and planned retail and employment uses in the area. ELUX at McQueen is a project that incorporates a compatible transitioning density. The proposed clubhouse, outdoor amenities, and courtyard-style layouts will help to create a close community by providing a creative space for families, friends and neighbors to enjoy together. Cohesive pedestrian connectivity throughout the development reinforces a desirable lifestyle and embraces place-making principles. A community with tasteful modern architectural design and themes that complement the surrounding developments, assures that ELUX at McQueen will be a valuable asset to the City and immediate area. The development also creates visual interest on the perimeter through an attractive perimeter wall, architectural facades, a creatively designed entryway, and a well-planned open space and amenity area. We request your approval.

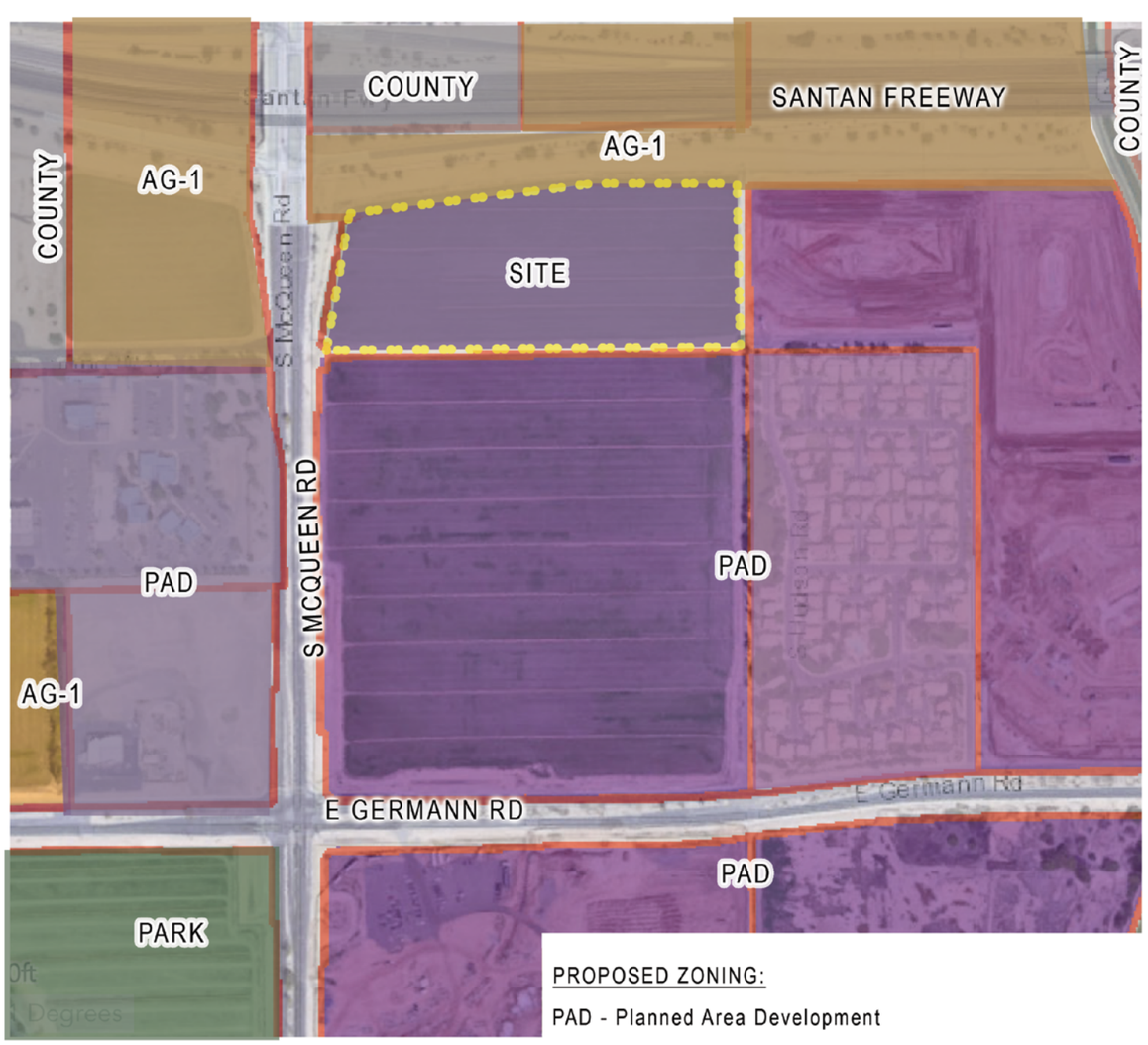
EXHIBIT A: VICINITY MAP



EXISTING ZONING MAP

LEGEND

- PAD - Planned Area Development
- AG-1 - Agricultural District
- County Land
- Parks



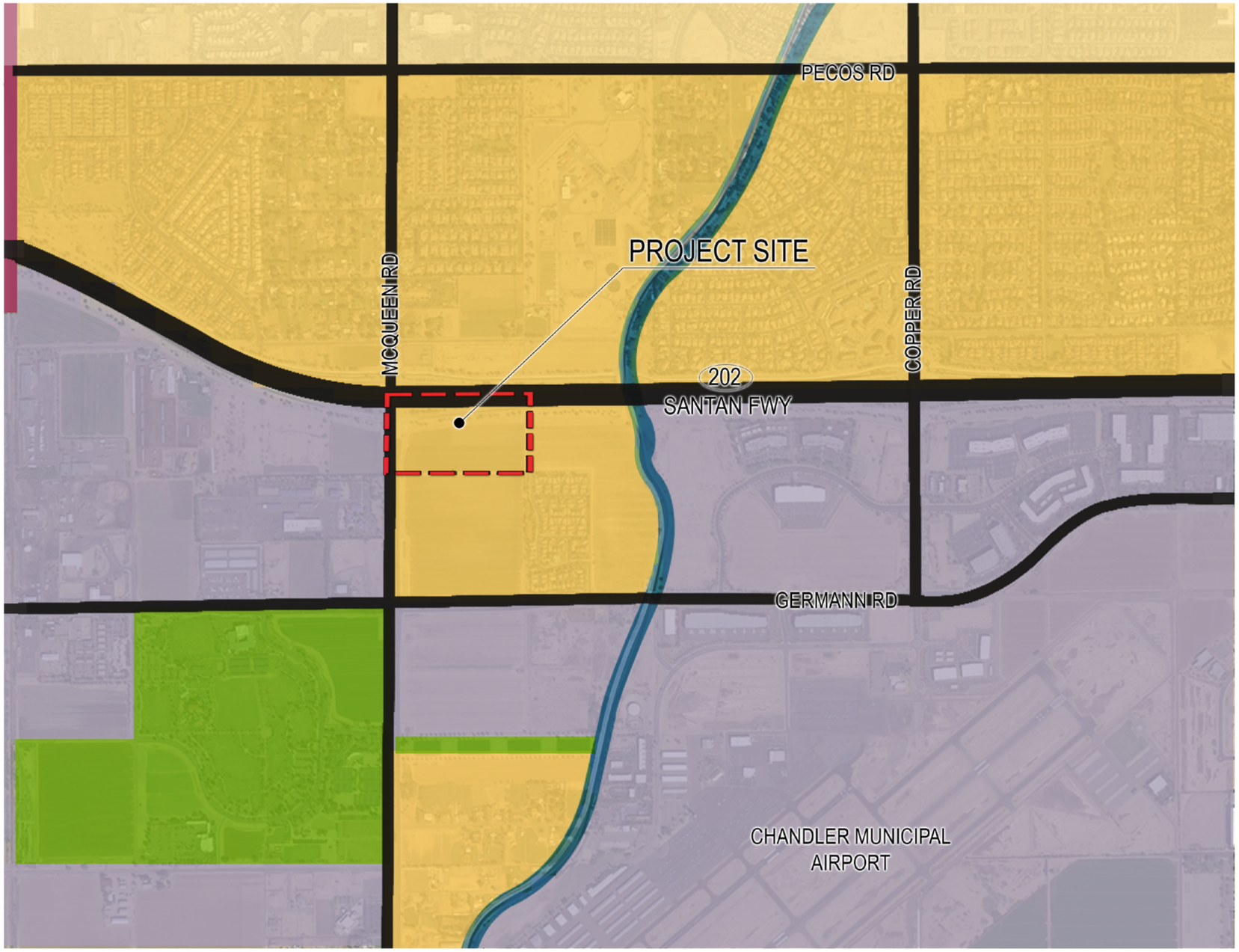
PROPOSED ZONING MAP

LEGEND

- PAD - Planned Area Development
- AG-1 - Agricultural District
- County Land
- Parks

EXHIBIT B: EXISTING & PROPOSED ZONING MAP

N



GENERAL PLAN MAP LEGEND

- Neighborhoods
- Regional Commercial
- Employment
- Recreation/Open Space
- Growth Areas

GENERAL PLAN MAP

EXHIBIT C: GENERAL PLAN LAND USE MAP

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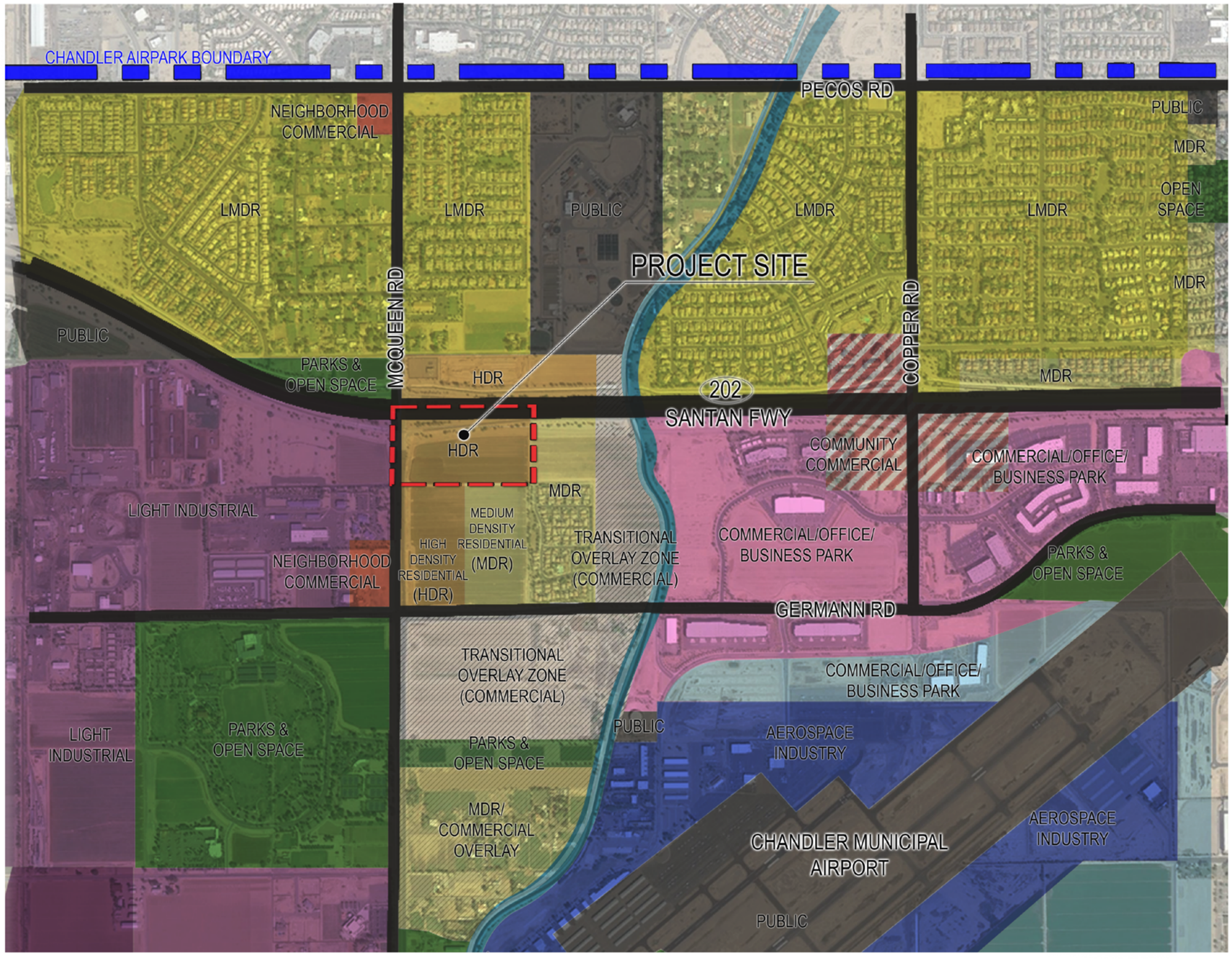


LAND USE LEGEND

- RR (0-1.5 D.U. PER ACRE) 300 ACRES
- LDR (1.6-3.5 D.U. PER ACRE) 1020 ACRES
- LMDR (3.6-6 D.U. PER ACRE) 240 ACRES
- MDR (6.1-12 D.U. PER ACRE) 200 ACRES
- HDR (12.1-18 D.U. PER ACRE) 130 ACRES
- NEIGHBORHOOD COMMERCIAL 10 ACRES
- COMMUNITY COMMERCIAL 70 ACRES
- REGIONAL COMMERCIAL 240 ACRES
- SPECIAL USE COMMERCIAL 100 ACRES
- COMMERCIAL/OFFICE/BUSINESS PARK 848 ACRES
- LIGHT INDUSTRIAL 560 ACRES
- INDUSTRIAL 280 ACRES
- COMMERCIAL/OFFICE/BUSINESS PARK (TAXIWAY ACCESS) 440 ACRES
- AEROSPACE INDUSTRY (FBO) 297 ACRES
- PUBLIC / SEMI-PUBLIC FACILITIES 470 ACRES
- PARKS AND OPEN SPACE 500 ACRES
- TRANSITIONAL OVERLAY ZONE (TO ANY COMMERCIAL USE) 220 ACRES
- STUDY AREA BOUNDARY AND AIRPORT OVERLAY DISTRICT

EXISTING

EXHIBIT D: CHANDLER AIRPARK AREA PLAN

N

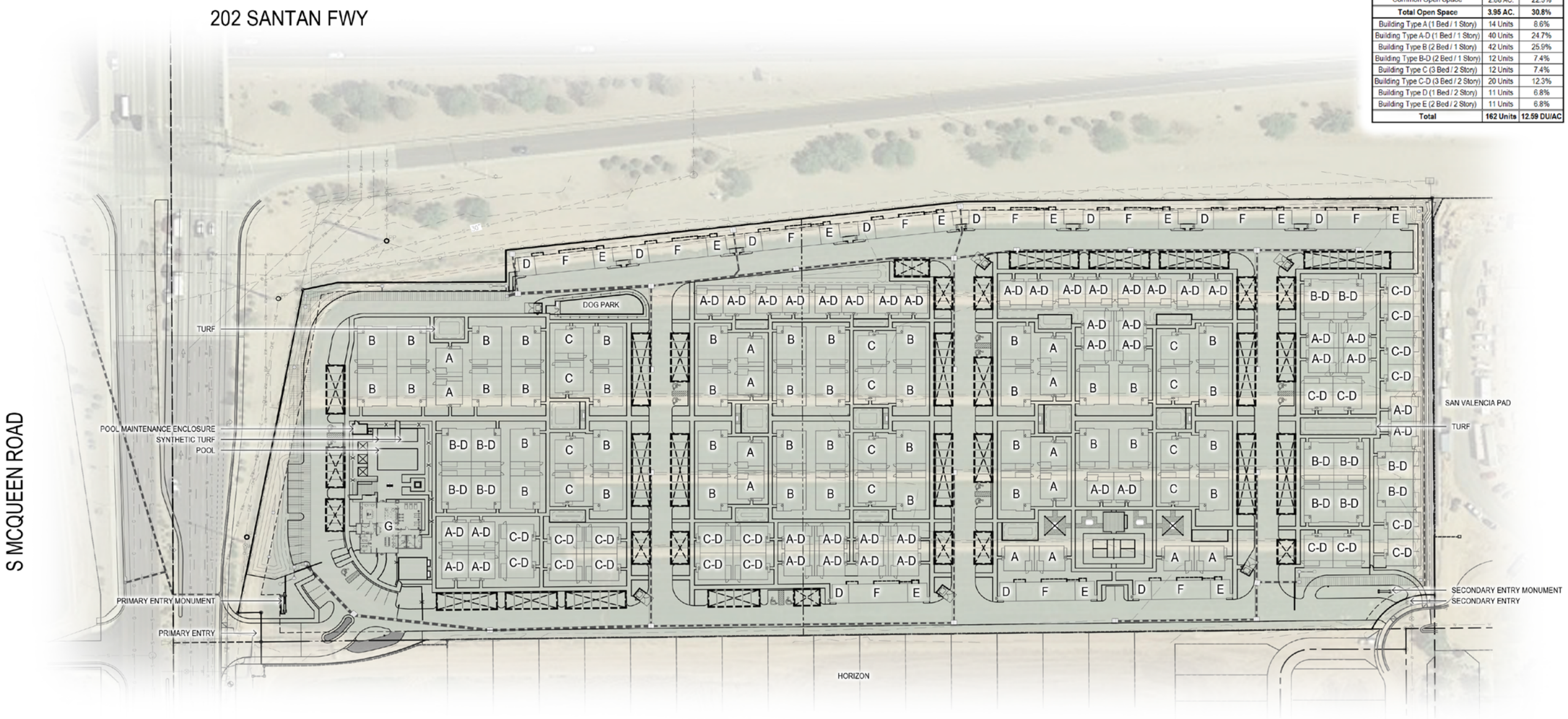
EXHIBIT E: DEVELOPMENT PLAN

Site Data		
Gross Acreage	13.90 AC.	
Net Acreage	12.87 AC.	
Private Open Space	1.08 AC.	8.4%
Common Open Space	2.88 AC.	22.3%
Total Open Space	**3.95 AC.**	**30.8%**
Building Type A (1 Bed / 1 Story)	14 Units	8.6%
Building Type A-D (1 Bed / 1 Story)	40 Units	24.7%
Building Type B (2 Bed / 1 Story)	42 Units	25.9%
Building Type B-D (2 Bed / 1 Story)	12 Units	7.4%
Building Type C (3 Bed / 2 Story)	12 Units	7.4%
Building Type C-D (3 Bed / 2 Story)	20 Units	12.3%
Building Type D (1 Bed / 2 Story)	11 Units	6.8%
Building Type E (2 Bed / 2 Story)	11 Units	6.8%
Total	**162 Units**	**12.59 DU/AC**

N

DEVELOPMENT PLAN

Site Data		
Gross Acreage	13.90 AC.	
Net Acreage	12.87 AC.	
Private Open Space	1.08 AC.	8.4%
Common Open Space	2.88 AC.	22.3%
Total Open Space	**3.95 AC.**	**30.8%**
Building Type A (1 Bed / 1 Story)	14 Units	8.6%
Building Type A-D (1 Bed / 1 Story)	40 Units	24.7%
Building Type B (2 Bed / 1 Story)	42 Units	25.9%
Building Type B-D (2 Bed / 1 Story)	12 Units	7.4%
Building Type C (3 Bed / 2 Story)	12 Units	7.4%
Building Type C-D (3 Bed / 2 Story)	20 Units	12.3%
Building Type D (1 Bed / 2 Story)	11 Units	6.8%
Building Type E (2 Bed / 2 Story)	11 Units	6.8%
Total	**162 Units**	**12.59 DU/AC**



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DEVELOPMENT PLAN

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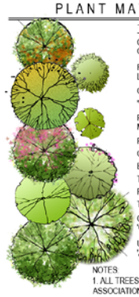
EXHIBIT F: LANDSCAPE PLAN

PLANT MATERIALS LEGEND



Trees	Size	Height	Width	Caliper
Chitalpa tashkinensis Chitalpa	24" Box	6' Min.	3' Min.	1" Min.
Fraxinus greggii Little Leaf Ash	24" Box	NA	NA	1" Min.
Olea europea 'Wilsonii' Olive	36" Box Multi	8' Min.	5' Min.	
Pistacia lentiscus Mastic Tree	24" Box	NA	NA	1" Min.
Pistacia chinensis Chinese Pistache	24" Box	7' Min.	2.5" Min.	1" Min.
Ebenopsis ebano Texas Ebony	15 gal.	4' Min.	3' Min.	0.5" Min.
Prosopis hybrid Thornless Mesquite	15 gal.			
Quercus virginiana 'Cathedral' Oak	24" Box	7' Min.	3' Min.	1.0"
Ulmus parvifolia 'Allee' Elm	24" Box	7' Min.	3' Min.	1" Min.

NOTES
1. ALL TREES SHALL COMPLY WITH THE LATEST AMENDED EDITION OF THE "ARIZONA NURSERY ASSOCIATION - RECOMMENDED TREE SPECIFICATIONS." SEE SECTION 1903(6)(A), ZONING CODE

Extra Large Shrubs	Size
Bougainvillea 'California Gold' Orange Bougainvillea	5 gal.
Caesalpinia gilliesii Yellow Bird of Paradise	5 gal.
Caesalpinia mexicana Mexican Bird of Paradise	5 gal.
Cordia Boissieri Anacahuita	5 gal.
Dodonea viscosa Hopbush	5 gal.
Tecoma alata 'Orange Jubilee' Orange Jubilee	5 gal.
Tecoma sp. 'Sparky' Sparky	5 gal.
Vauquelinia californica Arizona Rosewood	

Large Shrubs	Size
Cassia artemisioides 'Silver' Silver Cassia	5 gal.
Leucophyllum frutescens 'Green Cloud' Green Cloud Sage	5 gal.
Leucophyllum langmaniae Lynn's Legacy Sage	5 gal.
Leucophyllum langmaniae 'Rio Bravo' Rio Bravo Sage	5 gal.
Ligustrum japonicum Japanese Privet	5 gal.
Nerium Oleander 'Little Red' Oleander 'Little Red'	5 gal.
Salvia clevlandi Chaparral Sage	5 gal.

Medium Shrubs	Size
Eremophila glabra spp. carnosa Winter Blaze	5 gal.
Eremophila hygrophana Blue Bells Blue Bells	5 gal.
Leucophyllum frutescens 'compacta' Compact Texas Sage	5 gal.
Teucrium fruticans Bush Germander	5 gal.

Small Shrubs	Size
Bucca microphylla japonica Green Beauty Boxwood	5 gal.
Guara lindheimeri Pink Guara	1 gal.
Russelia equatiformis Coral Fountain	5 gal.

Groundcovers	Size
Chrysadinia mexicana Damianita	1 gal.
Eremophila prostrata Outback Sunrise Eremophila	1 gal.
Gazania rigens 'Sun Gold' Trailing Yellow Gazania	1 gal.
Lantana montevidensis Purple Trailing Lantana	1 gal.
Lantana sp. 'New Gold' Lantana	1 gal.
Lantana sp. 'New Red' Lantana	1 gal.
Rosmarinus officinalis 'Prostratus' Trailing Rosemary	1 gal.
Teucrium chamaedrys 'prostratum' Prostrate Germander	1 gal.

Cacti/ Accents	Size
Agave americana 'Marginata' Variegated Century Plant	5 gal.
Agave bovicornuta Cow's Horn	5 gal.
Agave salmiana x ferox Large Leaf Agave	5 gal.
Boutelous gracilis Blond Ambition	1 gal
Dasylirion acrotrichum Green Desert Spoon	5 gal.
Euphorbia antisyphilitica Candelilla	1 gal
Euphorbia rigida Gopher Plant	5 gal.
Hesperaloe sp. Pink Parade Pink Parade Hesperaloe	3 gal.
Hesperaloe parviflora 'Brakelights' Red Yucca	3 gal.

Cacti/ Accents Cont.	Size
Muhlenbergia lindheimeri 'Autumn Glow'	5 gal.
Muhlenbergia rigens Deer Grass	1 gal.
Muhlenbergia rigida 'Nashville' Nashville Muhly Grass	5 gal.
Nolina matapensis Beargrass	5 gal.
Opuntia sp. Kelly's Choice Kelly's Choice Prickly Pear	5 gal.
Portulacaria afra minima Dwarf Elephant Food	5 gal.
Yucca baccata Banana Yucca	15 gal.
Yucca pallida Pale Leaf Yucca	5 gal.
Yucca rupicola Twisted Leaf Yucca	5 gal.

Vines	Size
Bougainvillea 'California Gold' Orange Bougainvillea	5 gal
Ficus pumila Creeping Fig	5 gal

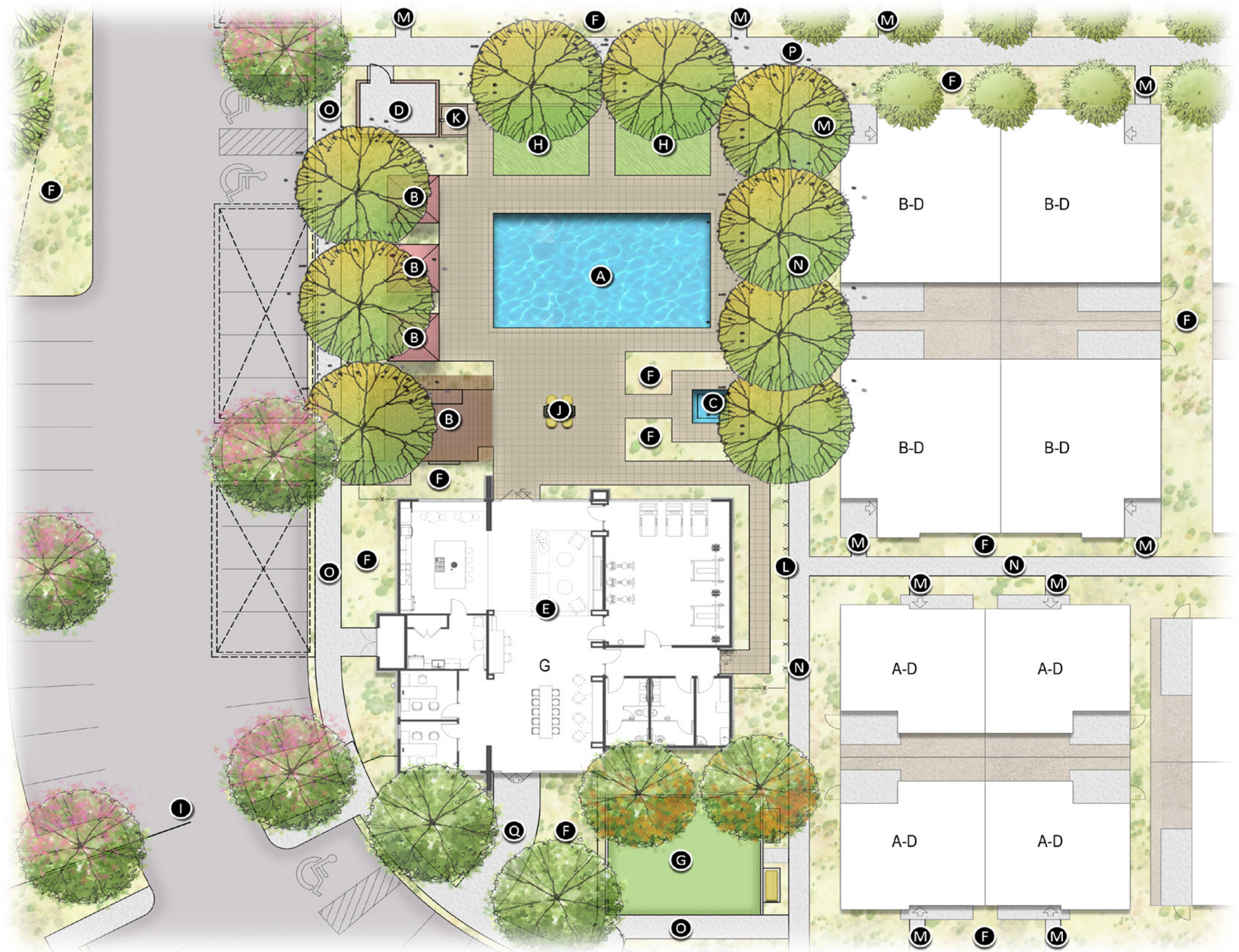
Inerts	
No Symbol	Decomposed Granite 2" Depth In All Planting Areas
	Turf - Midiron Sod
	6" Concrete Header
	6" Concrete Header Turndown
	Concrete Turndown

N

EXHIBIT G: OPEN SPACE PLAN

Site Data		
Gross Acreage	13.90 AC.	
Net Acreage	12.87 AC.	
Private Open Space	1.08 AC.	8.4%
Common Open Space	2.88 AC.	22.3%
Total Open Space	**3.95 AC.**	**30.8%**
Building Type A (1 Bed / 1 Story)	14 Units	8.6%
Building Type A-D (1 Bed / 1 Story)	40 Units	24.7%
Building Type B (2 Bed / 1 Story)	42 Units	25.9%
Building Type B-D (2 Bed / 1 Story)	12 Units	7.4%
Building Type C (3 Bed / 2 Story)	12 Units	7.4%
Building Type C-D (3 Bed / 2 Story)	20 Units	12.3%
Building Type D (1 Bed / 2 Story)	11 Units	6.8%
Building Type E (2 Bed / 2 Story)	11 Units	6.8%
Total	**162 Units**	**12.59 DU/AC**

EXHIBIT H: AMENITY PLAN



KEYNOTES

- A POOL
- B SHADE FEATURE
- C SPA
- D POOL EQUIPMENT
- E AMENITY BUILDING
- F PLANTING AREA
- G TURF
- H SYNTHETIC TURF
- I VEHICULAR ENTRY GATE
- J FIRE PIT
- K OUTDOOR SHOWER
- L POOL BARRIER FENCE
- M 3'-0" SIDEWALK
- N 4'-0" SIDEWALK
- O 5'-0" SIDEWALK
- P 6'-0" SIDEWALK
- Q 9'-0" SIDEWALK

N

AMENITY PLAN

KEYNOTES

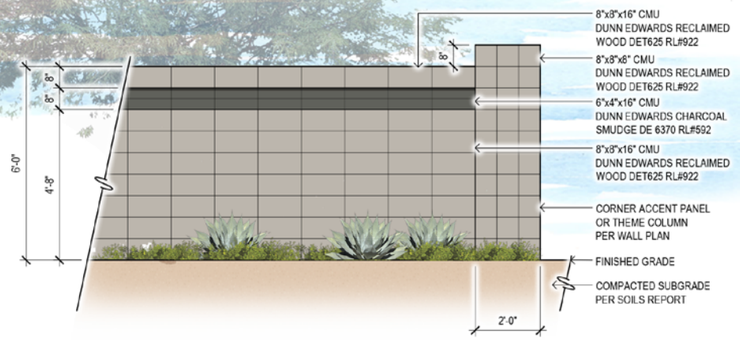
- A PICKLE BALL COURT
- B SHADE FEATURE
- C FESTOON LIGHTS
- D SITE FURNISHING
- E TURF
- F STABILIZED DECOMPOSED GRANITE
- G PLANTING AREA
- H 3'-0" SIDEWALK
- I 4'-0" SIDEWALK
- J 5'-0" SIDEWALK

N

EXHIBIT I: PEDESTRIAN CIRCULATION PLAN

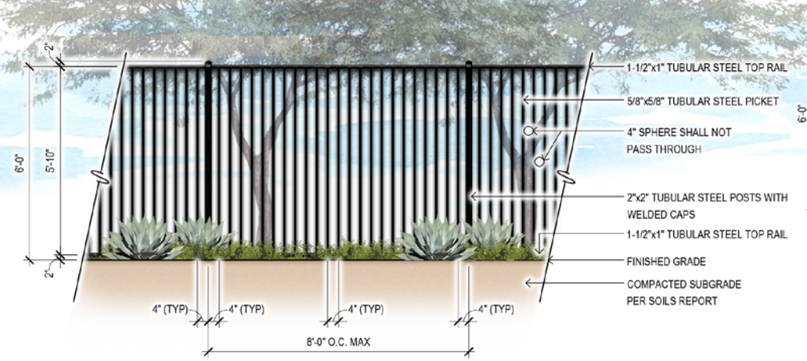
EXHIBIT J: WALL PLAN

EXHIBIT K: WALL DETAILS



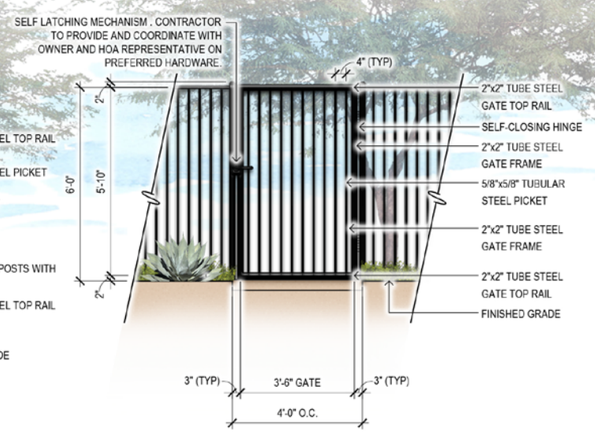
ELEVATION

1 Theme Wall
SCALE:1/2"=1'-0"



ELEVATION

2 Full View Fence
SCALE:1/2"=1'-0"



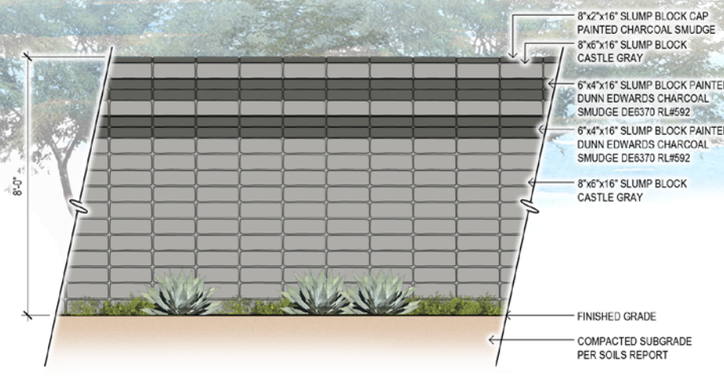
SECTION B

3 Pedestrain Swing Gate
SCALE:1/2"=1'-0"

8"X6"X16" SLUMP BLOCK
STACKED BOND PATTERN
CASTLE GRAY OR APPROVED EQUAL

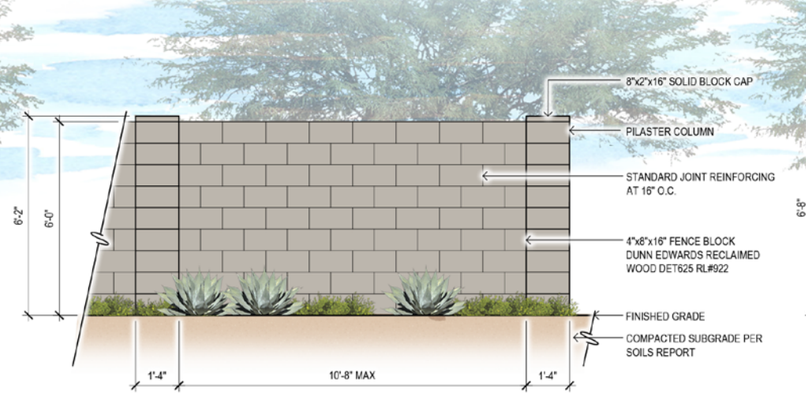
8"X8"X16" CMU
DUNN EDWARDS RECLAIMED WOOD
DET625 RL#922 OR APPROVED EQUAL

6"X4"X16" CMU STACKED BOND PATTERN
DUNN EDWARDS CHARCOAL SMUDGE
DE6370 RL#592 OR APPROVED EQUAL



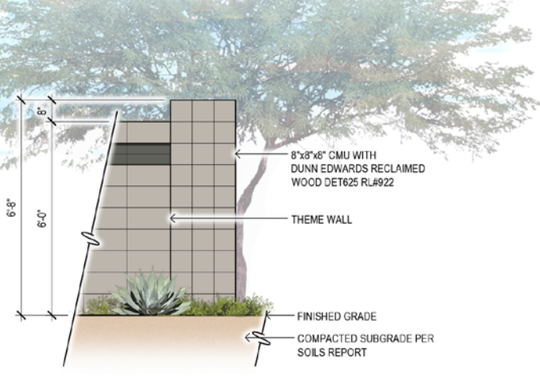
ELEVATION

4 Sound Barrier Wall
SCALE:1/2"=1'-0"



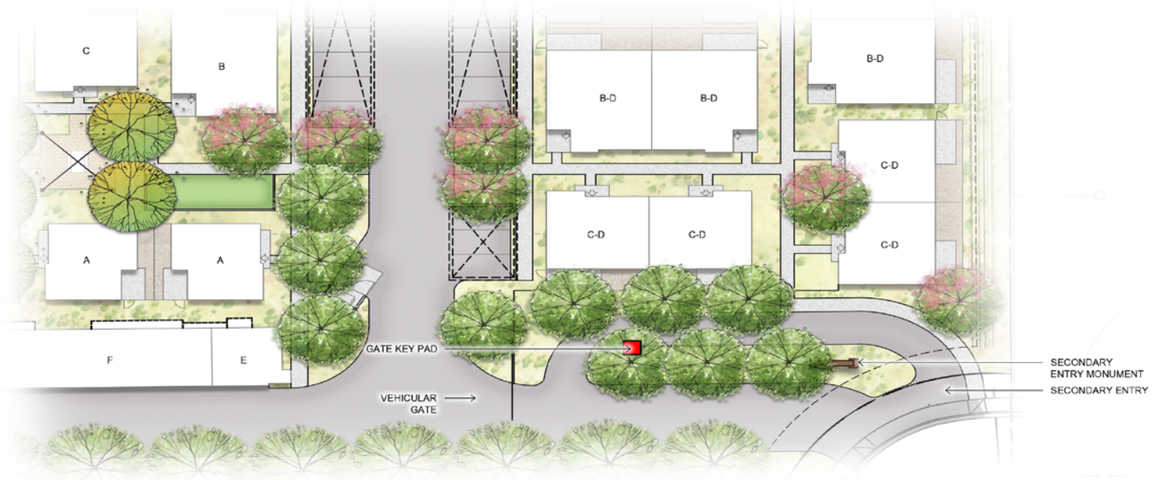
ELEVATION

5 Builder Wall
SCALE:1/2"=1'-0"

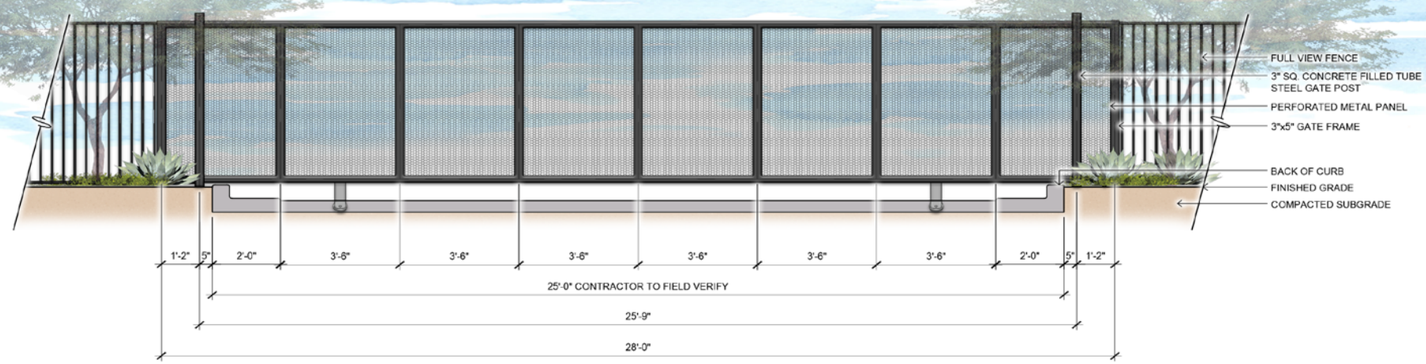


5 Theme Column
SCALE:1/2"=1'-0"

Primary Entry
SCALE: 1"=20'-0"



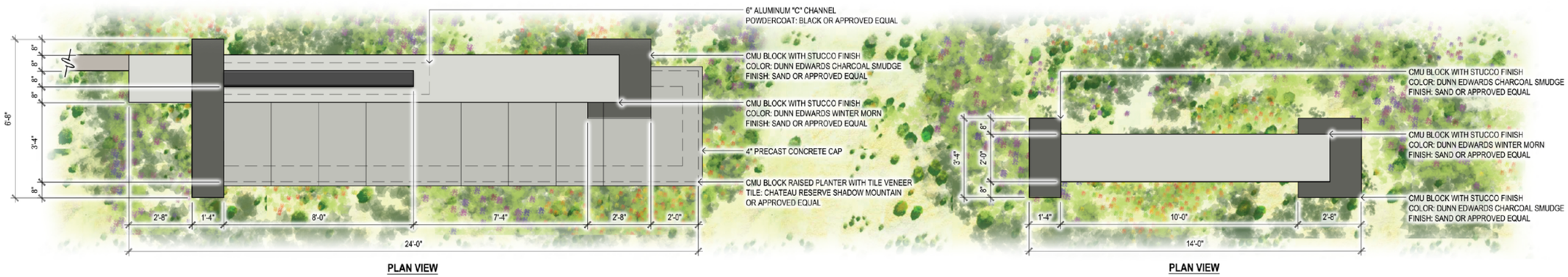
Secondary Entry
SCALE: 1"=20'-0"

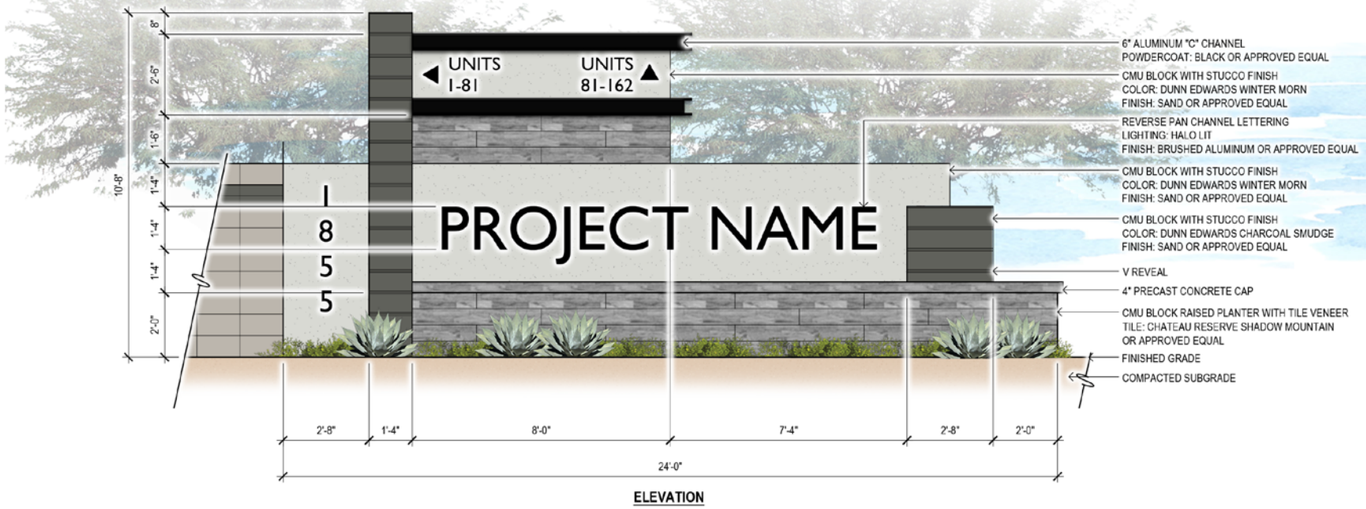


PERFORATED METAL PANEL
OR APPROVED EQUAL

Vehicular Gate
SCALE: 1/2"=1'-0"

EXHIBIT L: ENTRY PLAN & DETAILS





1 Primary Entry Monument
SCALE:1/2"=1'-0"

2 Secondary Entry Monument
SCALE:1/2"=1'-0"

CHATEAU RESERVE SHADOW MOUNTAIN
TILE VENEER OR APPROVED EQUAL

CMU BLOCK WITH STUCCO FINISH
DUNN EDWARDS WINTER MORN
OR APPROVED EQUAL

CMU BLOCK WITH STUCCO FINISH
DUNN EDWARDS CHARCOAL SMUDGE
OR APPROVED EQUAL

EXHIBIT N: AIRCRAFT WARNING SIGN PLAN

"LOW FLYING AIRCRAFT" ADVISORY SIGN

ADVISORY SIGN EXAMPLE

EXHIBIT O: ILLUSTRATIVE RENDERING

ILLUSTRATIVE RENDERING

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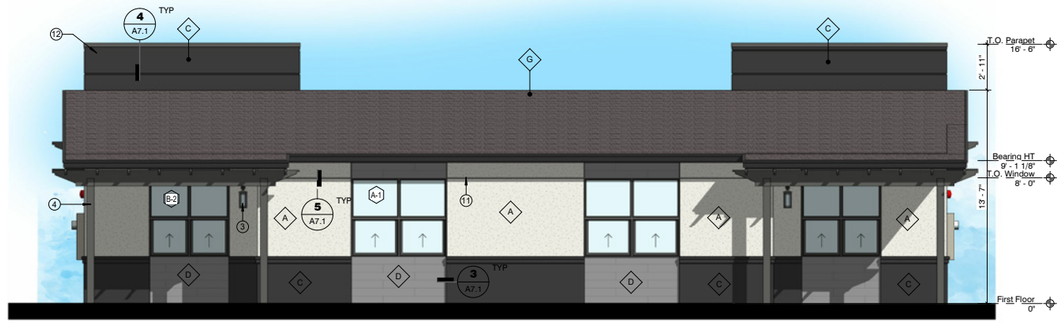

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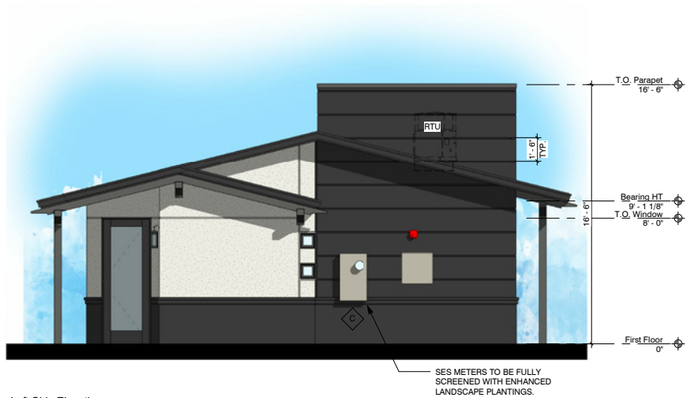
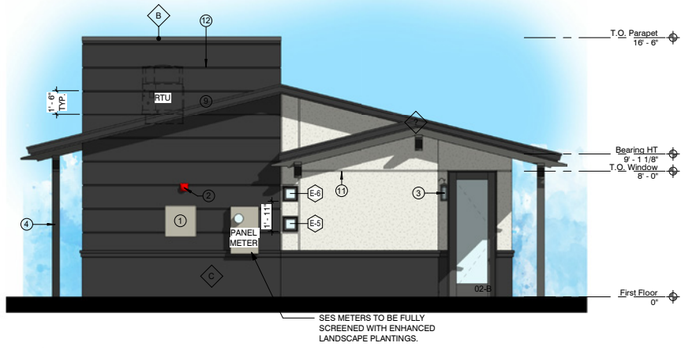
1/4" = 1'-0"



4 Left Side Elevation
1/4" = 1'-0"



2 Right Side Elevation
1/4" = 1'-0"

1 Front Elevation
1/4" = 1'-0"

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
2 FIRE ALARM BELL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS. SEE STRUCTURAL SHEETS
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
9 THICKENED RIGID INSULATION ADDITIONAL 1-1/2" TYP WITH HORIZONTAL V REVEAL TYP
11 STUCCO CONTROL JOINT SEE 5/A7.1
12 STUCCO V REVEL SEE 4/A7.1
14 LINE OF ROOF BEYOND

SYNECTIC DESIGN
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FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (B)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (B)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

REGISTERED ARCHITECT
CERTIFICATE
35529
LANCE D. BAKER
ARIZONA U.S.A.
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: NYK
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-10-22
Sheet:

A3.1

EXTERIOR ELEVATIONS
UNIT TYPE A-DUPLEX

EXHIBIT P: ELEVATIONS & FLOOR PLANS

XXXX

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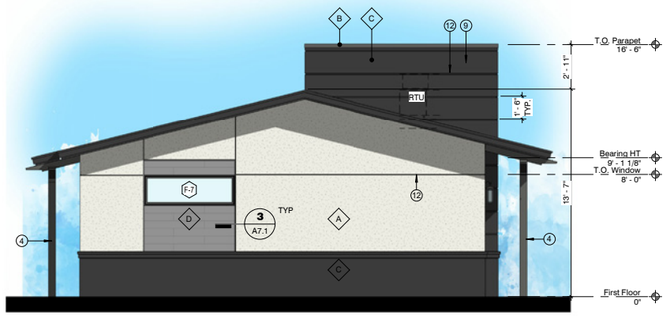
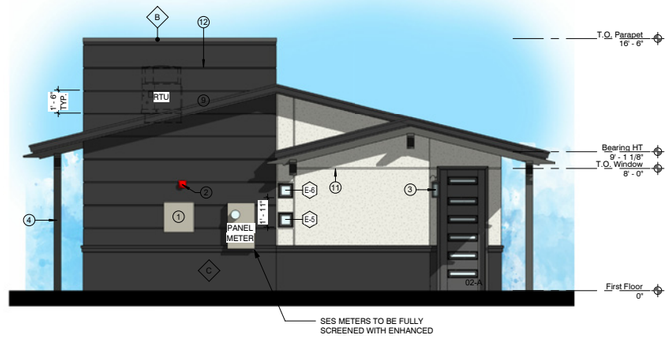
3 Back Elevation
1/4" = 1'-0"



4 Left Side Elevation
1/4" = 1'-0"



2 Right Side Elevation
1/4" = 1'-0"

1 Front Elevation
1/4" = 1'-0"

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL. AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
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3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
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9 THICKENED RIGID INSULATION ADDITIONAL 1-1/2" TYP WITH HORIZONTAL V REVEAL TYP
11 STUCCO CONTROL JOINT SEE 5/A7.1
12 STUCCO V REVEL SEE 4/A7.1
14 LINE OF ROOF BEYOND
00
20

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

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2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0"

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4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (8)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

SYNECTIC DESIGN
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REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A3.1
EXTERIOR ELEVATIONS
UNIT TYPE A

ELEVATIONS & FLOOR PLANS

XXXX
XXXX

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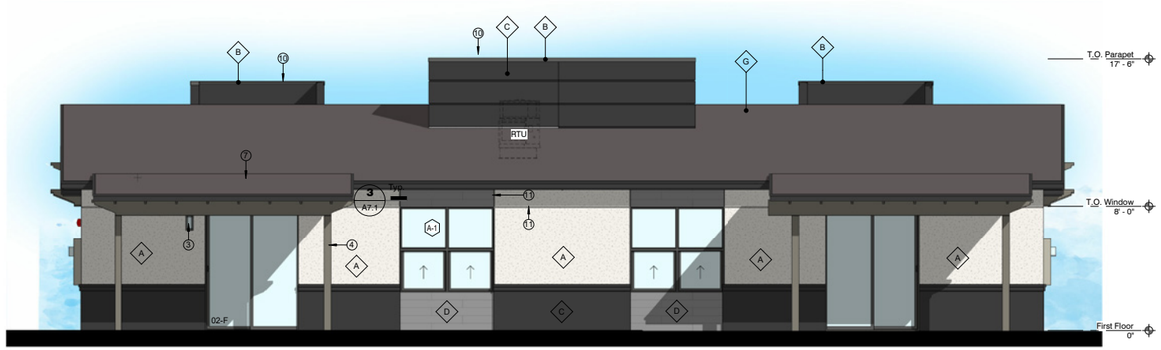
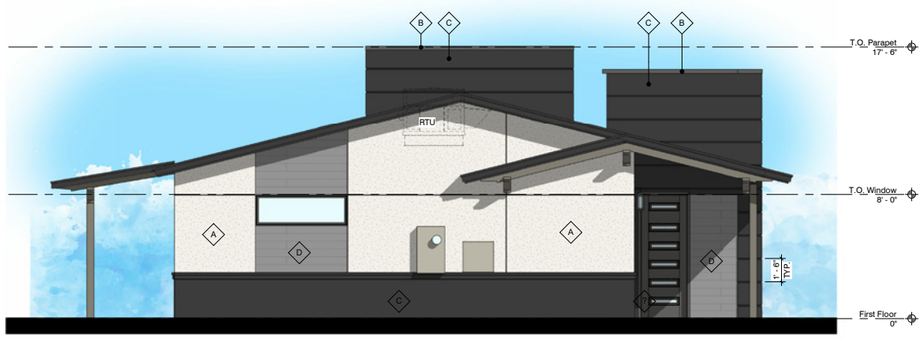
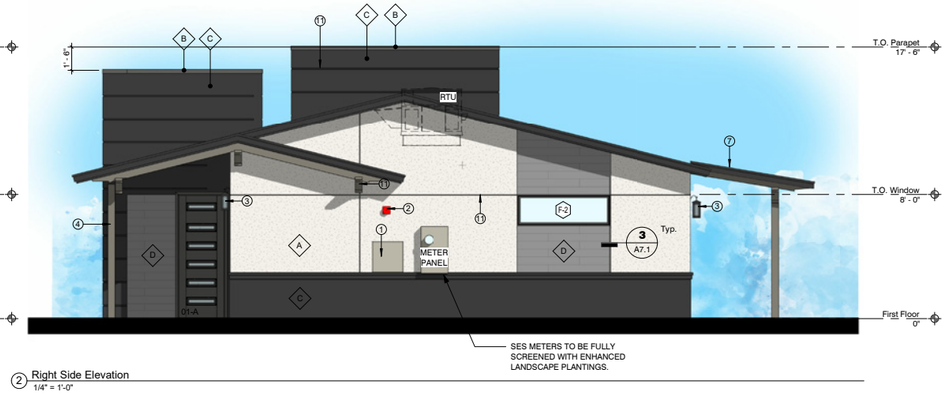


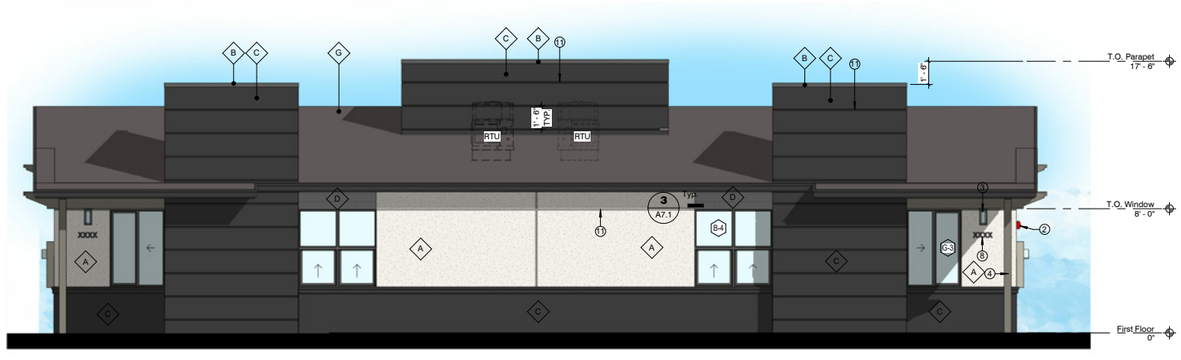
3 Back Elevation
1/4" = 1'-0"



4 Left Side Elevation
1/4" = 1'-0"



2 Right Side Elevation
1/4" = 1'-0"



1 Front Elevation
1/4" = 1'-0"

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
2 FIRE ALARM BELL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS
7 SHADE CANOPY SLOPE AWAY FROM BUILDING (MIN. 1/4" / 12")
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
11 STUCCO CONTROL JOINT SEE 5/A7.1

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE -SMOOTH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (8)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (8)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

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REGISTERED ARCHITECT
CERTIFICATE
35029
LANCE D. BAKER
ARIZONA U.S.A.
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: NYK
Reviewed By: LDB
SDI Project No: 4014
Date: 2020-10-22
Sheet:

A3.3

EXTERIOR ELEVATIONS
UNIT TYPE B DUPLEX

ELEVATIONS & FLOOR PLANS

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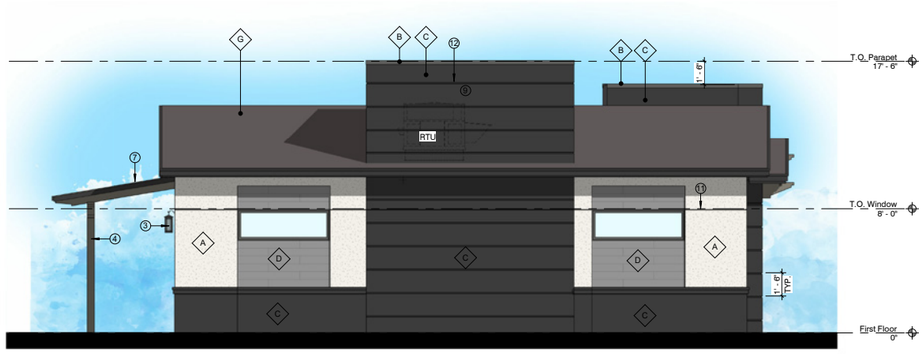
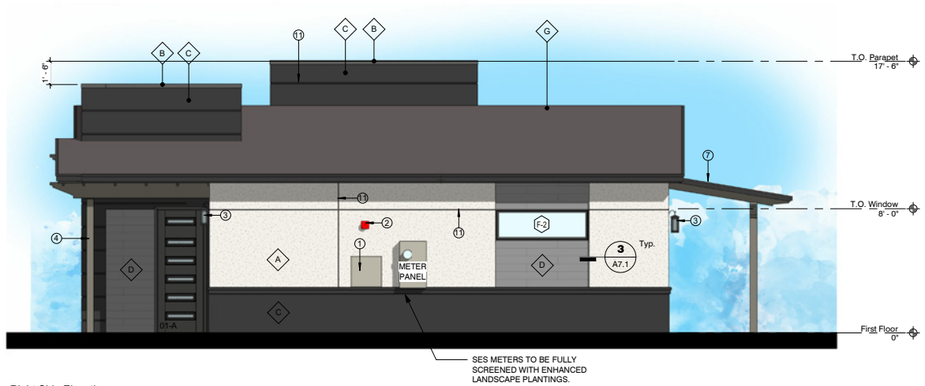
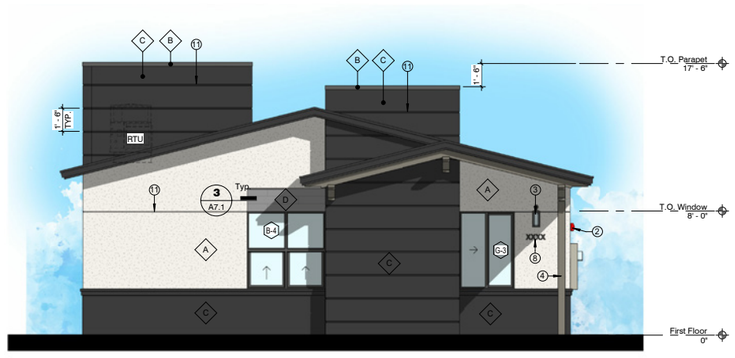
3 Back Elevation
1/4" = 1'-0"



4 Left Side Elevation
1/4" = 1'-0"



2 Right Side Elevation
1/4" = 1'-0"



1 Front Elevation
1/4" = 1'-0"

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
2 FIRE ALARM BELL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS
7 SHADE CANOPY SLOPE AWAY FROM BUILDING (MIN. 1/4" / 12")
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
9 THICKENED RIGID INSULATION ADDITIONAL 1-1/2" TYP WITH HORIZONTAL V REVEAL TYP
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
11 STUCCO CONTROL JOINT SEE 5/A7.1
12 STUCCO V REVEL SEE 4/A7.1

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (8)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (8)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

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REGISTERED ARCHITECT
35529
LANCE D. BAKER
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewed By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A3.3
EXTERIOR ELEVATIONS
UNIT TYPE B

ELEVATIONS & FLOOR PLANS

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EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (B)(E)(15), ZONING CODE.
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5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL. AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
2 FIRE ALARM BELL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS
7 SHADE CANOPY SLOPE AWAY FROM BUILDING (MIN. 1/4" / 12")
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
11 STUCCO CONTROL JOINT SEE 5/A7.1
12 STUCCO V REVEL SEE 4/A7.1
14 LINE OF ROOF BEYOND

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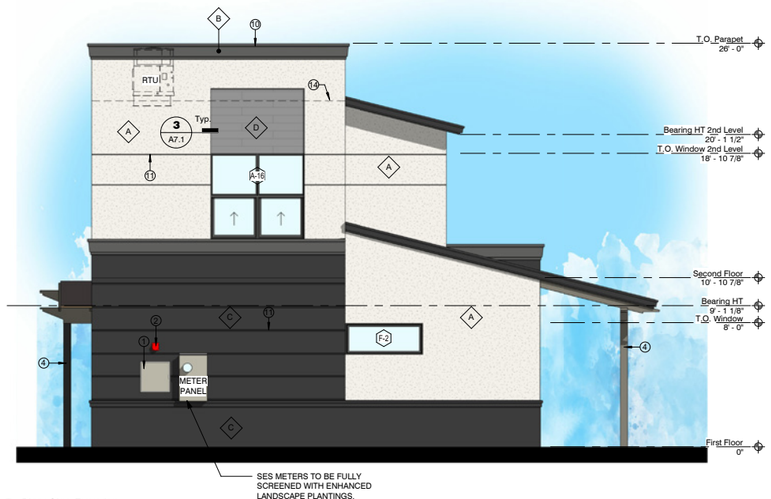
3 Rear Elevation
1/4" = 1'-0"

2 Left Side Elevation
1/4" = 1'-0"



4 Right Side Elevation
1/4" = 1'-0"

1 Front Elevation
1/4" = 1'-0"

REVISIONS

Phase:	PDP
Drawn By:	NYK
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-10-23
Sheet:	**A3.5**

EXTERIOR ELEVATIONS
UNIT TYPE C DUPLEX

ELEVATIONS & FLOOR PLANS

XXXX

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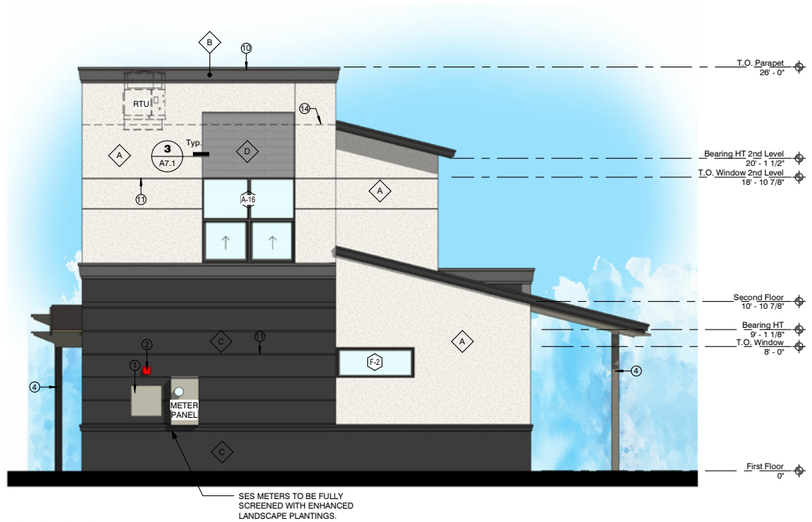
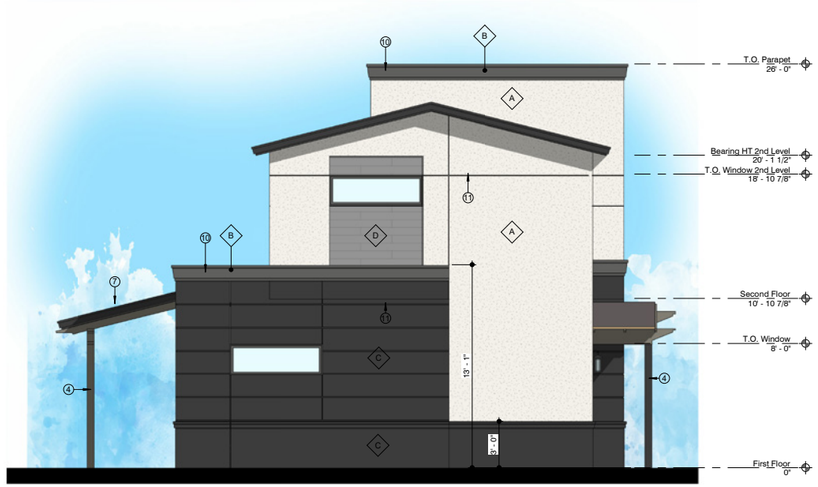


4 Right Side Elevation
1/4" = 1'-0"

3 Rear Elevation
1/4" = 1'-0"



2 Left Side Elevation
1/4" = 1'-0"

1 Front Elevation
1/4" = 1'-0"

SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
2 FIRE ALARM BELL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS
7 SHADE CANOPY SLOPE AWAY FROM BUILDING (MIN. 1/4" / 12")
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
11 STUCCO CONTROL JOINT SEE 5/A7.1
14 LINE OF ROOF BEYOND

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS DE6370 - CHARCOAL SMUDGE	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0"

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (B)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (B)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

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REGISTERED ARCHITECT
35529
LANCE D. BAKER
ARIZONA, U.S.A.
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A3.5
EXTERIOR ELEVATIONS
UNIT TYPE C

ELEVATIONS & FLOOR PLANS

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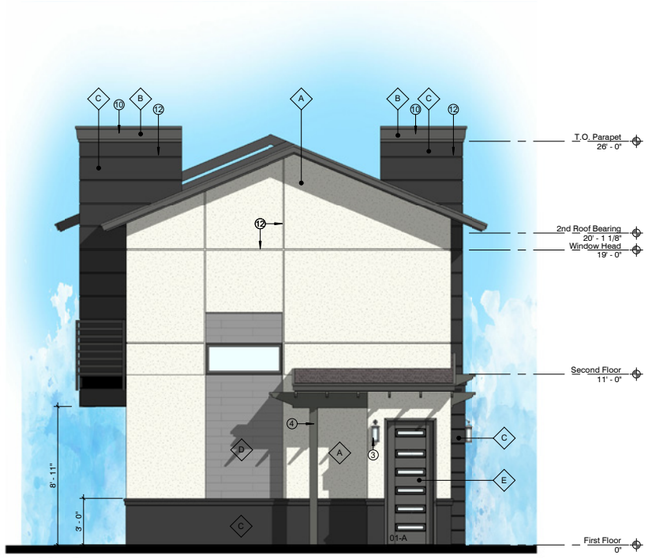


2 Left Side Elevation
1/4" = 1'-0"

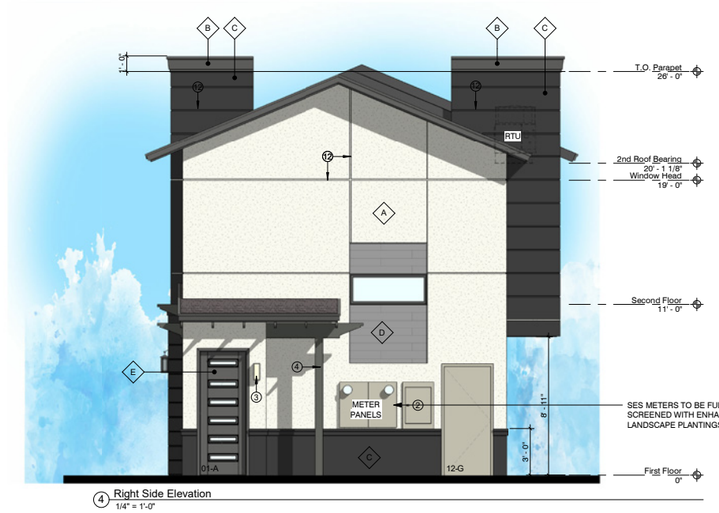
FINISH SCHEDULE EXTERIOR				
MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS AND WINDOWS	DE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'
3. TEMPERED GLAZING PANELS AT LOCATIONS INDICATED WITH T*

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (8)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (8)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.



4 Right Side Elevation
1/4" = 1'-0"

1 Front Elevation
1/4" = 1'-0"

SYNECTIC DESIGN
1111 West University Drive, Suite 104, Tempe, AZ 85281
t:480.948.9766
f:480.948.9211

SHEET KEYED NOTES

2 FIRE ALARM PANEL (DEFERRED SUBMITTAL)
3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
4 STEEL COLUMN FOR SHADE CANOPY, SEE STRUCTURAL SHEETS
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
12 STUCCO V REVEL SEE 4/A7.1

REGISTERED ARCHITECT
LANCE D. BAKER
35529
LANCE D. BAKER
ARIZONA, U.S.A.
EXP. 12/31/2021

REVISIONS

Phase:	PDP
Drawn By:	BLB
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-07-28
Sheet:	**A3.7**

EXTERIOR ELEVATIONS
UNIT TYPE D

ELEVATIONS & FLOOR PLANS

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SHEET KEYED NOTES

3 WALL MOUNTED EXTERIOR PORCH OR PATIO LIGHT FIXTURE, SEE ID, AND ELECTRICAL SHEETS
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
12 STUCCO V REVEL SEE 4/A7.1

SYNECTIC DESIGN
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f:480.948.9211

FINISH SCHEDULE EXTERIOR

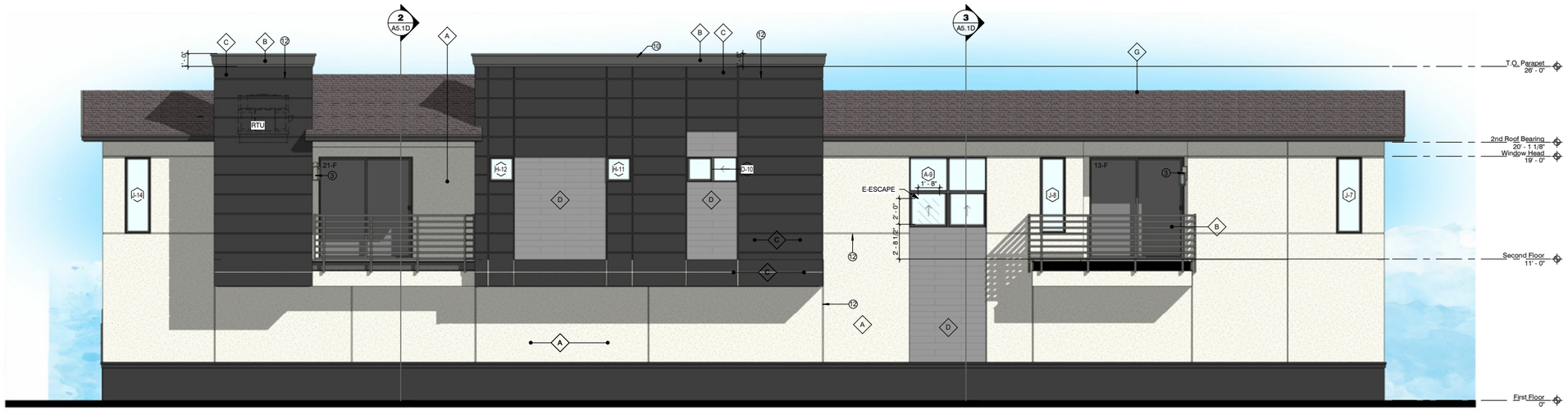
MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASCIA	TBD	METALWOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS AND WINDOWS	DE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370	
F	GLAZING	TBD	CLEAR LOW-E	
G	FLAT CONCRETE ROOF TILES	EAGLE	4503 SIERRA MADRE	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0'
3. TEMPERED GLAZING PANELS AT LOCATIONS INDICATED WITH T*

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (8)(E)(15), ZONING CODE.
4. SCREENING SHALL BE ARCHITECTURALLY INTEGRATED FOR THE SERVICE ENTRANCE SECTION (SES) AND ALL UTILITIES. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED FROM PUBLIC VIEW BY A CONCRETE OR MASONRY WALL WITH SOLID GATES, EQUAL TO OR GREATER IN HEIGHT THAN THE MECHANICAL EQUIPMENT. SECTION 35-1902 (8)(E)13, ZONING CODE.
5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.



1 Rear Elevation
1/4" = 1'-0"

REGISTERED ARCHITECT
CERTIFICATE
35229
LANCE D. BAKER
EXP. 12/31/2021

REVISIONS

Phase:	PDP
Drawn By:	BLB
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-07-28

Sheet:

A3.8

EXTERIOR ELEVATIONS
UNIT TYPE D

ELEVATIONS & FLOOR PLANS

XXXX

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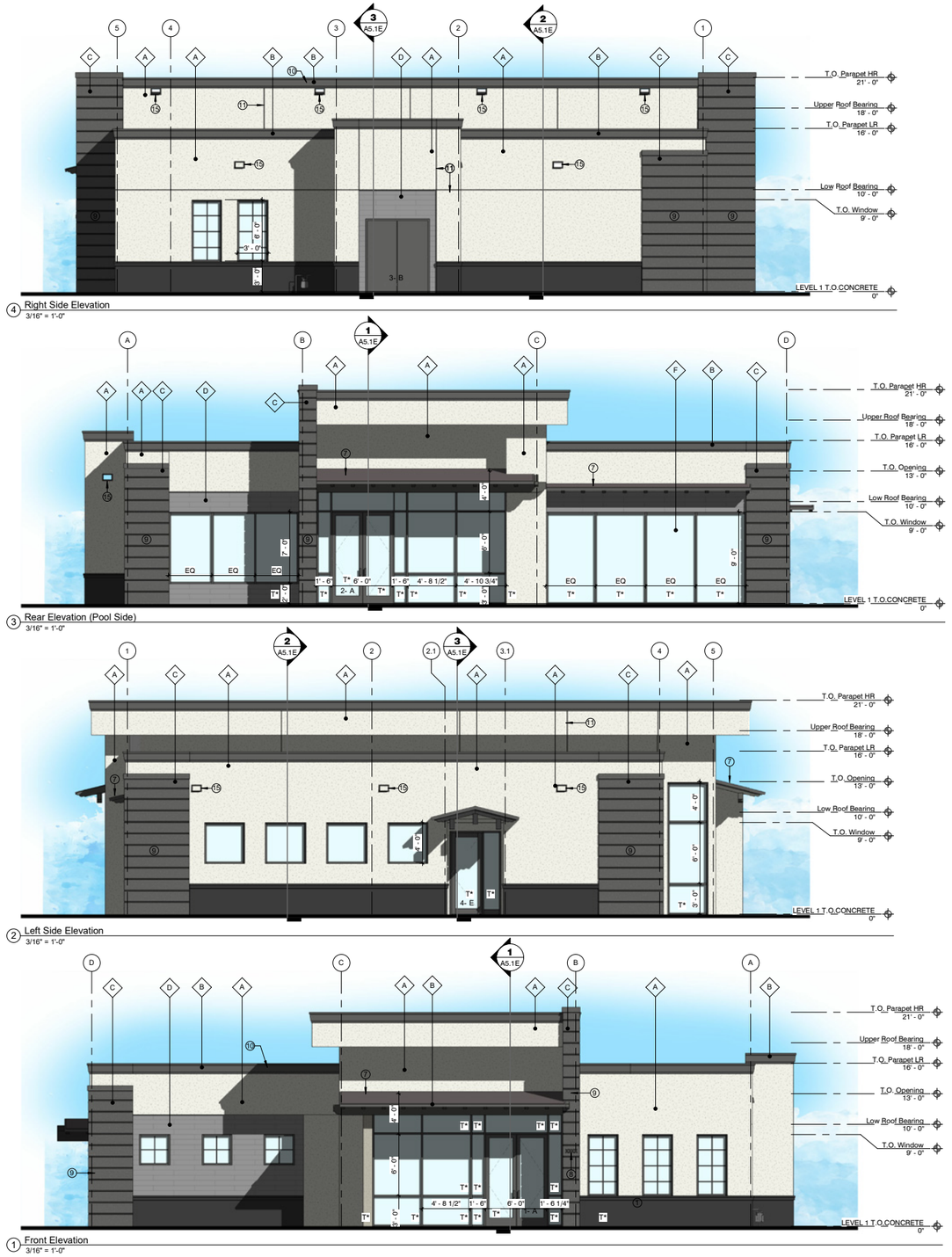

SHEET KEYED NOTES

1 FIRE DEPARTMENT CONNECTION F.D.C.
7 SHADE CANOPY SLOPE AWAY FROM BUILDING (MIN. 1/4" / 12")
8 BUILDING ADDRESS SEE ARCHITECTURAL SITE PLAN
9 THICKEND RIGID INSULATION ADDITIONAL 1-1/2" WITH HORIZONTAIL V REVEAL TYP
10 PRE-FINISHED METAL PARAPET CAP TYPICAL
11 STUCCO CONTROL JOINT SEE 5/A7.1
15 OVERFLOW SCUPPER. MATCH FINISH TO METAL PARAPET CAP

FINISH SCHEDULE EXTERIOR

MARK	MATERIAL	MANUF.	DESCRIPTION	IMAGE
A	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - WINTER MORN DET617 - SAND FINISH	
B	METAL TRIM / FASICA	TBD	METAL WOOD BRONZE - SMOOTH	
C	STUCCO FINISH SYSTEM	QUIKRETE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370 - SAND FINISH	
D	TILE CLADDING	MARAZZI	CHATEAU RESERVE - SHADOW MOUNTAIN CR42 - 6" x 48"	
E	DOORS, AND WINDOWS	DE	DUNN EDWARDS - CHARCOAL SMUDGE DE6370	
F	GLAZING	TBD	CLEAR LOW-E	

EXTERIOR ELEVATION GENERAL NOTES

1. SEE ARCHITECTURAL SITE PLAN FOR BUILDING ORIENTATION AND OR MIRRORING. ORIENTATION SHOWN IS FOR REFERENCE ONLY
2. SEE GRADING AND DRAINAGE PLAN FOR BUILDING ELEVATION FFE=FIRST FLOOR 0"
3. SEE SHEET A7.1E FOR TYPICAL STOREFRONT DETAILS
4. TEMPERED GLAZING PANELS AT LOCATIONS INDICATED WITH T*

COC REQUIRED NOTES

1. ALL ROOF MOUNTED MECHANICAL EQUIPMENT SHALL BE FULLY SCREENED BY PARAPET WALLS EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT.
2. SOLID MASONRY WALLS AND GATES EQUAL TO, OR GREATER THAN, THE HIGHEST POINT ON THE MECHANICAL EQUIPMENT SHALL SCREEN ALL GROUND MOUNTED MECHANICAL EQUIPMENT.
3. ANY ROOF ACCESS LADDERS SHALL BE LOCATED INSIDE THE BUILDING. ROOF DRAINAGE SHALL UTILIZE INTERIOR ROOF DRAINS OR BE ARCHITECTURALLY INTEGRATED INTO THE BUILDING DESIGN. ARCHITECTURALLY INTEGRATED ROOF DRAINS SHALL REQUIRE ADDITIONAL ARTICULATION BEYOND PAINT ACCENTS. SECTION 35-1902 (B)(E)(15), ZONING CODE.
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5. SIGNS REQUIRE A SEPARATE SUBMITTAL AND PERMIT.

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ELEVATIONS & FLOOR PLANS

Elux at McQueen
1855 S McQueen Rd
Chandler, AZ 85286

REGISTERED ARCHITECT
35529
LANCE D. BAKER
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A3.9
EXTERIOR ELEVATIONS TYPE G

XXXX

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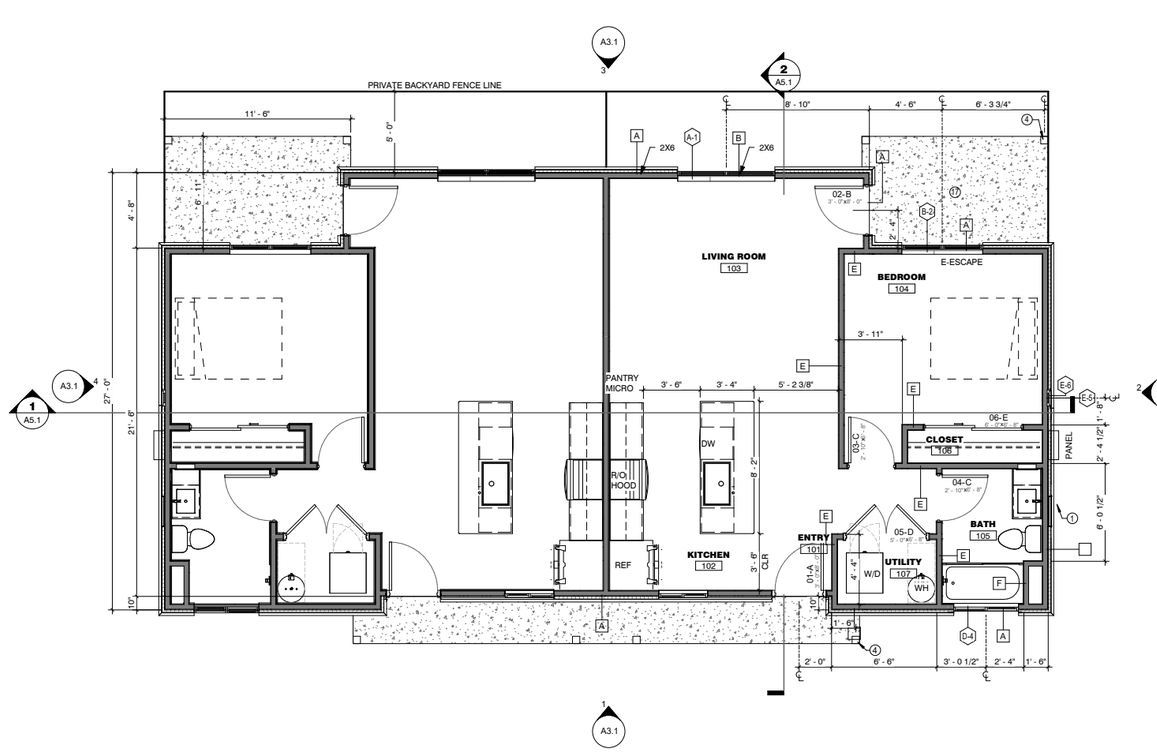
SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL

4 WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS

17 4" CONCRETE SLAB WITH THICKENED EDGE OVER 4" A.B.C. SLOPE 1/8" / 12" AWAY FOR BUILDING BROOM FINISH PERPENDICULAR TO SLOPE, SEE STRUCTURAL, AND CIVIL SHEETS

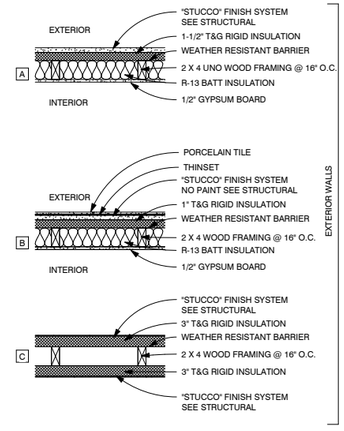


1 Floor Plan
1/4" = 1'-0"

GENRAL PLAN NOTES:

1. SEE ID DRAWING SHEETS FOR FINISH PLAN, REFLECTED CEILING PLAN, INTERIOR ELEVATIONS, FINISHES, FIXTURES, AND ADDITON INFORMATION AS NOTED.
2. SEE SHEET A8.1 FOR DOOR AND WINDOW TYPE, SIZE, AND ADDITIONAL INFORMATION
3. METER - ELECTRICAL METER (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
4. PANEL - ELECTRICAL DISTRIBUTION PANEL (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
5. RTU - ROOF TOP HVAC UNIT CURB MOUNTED SCREENED BY PARAPET OR ATTACHED PRE-MANUFACTURED SCREEN, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
6. WH - ELECTRIC WATER HEATER, SEE ID, PLUMBING AND ELECTRICAL SHEETS
7. REF - REFRIGERATOR, SEE ID SHEETS
8. R/O HOOD - LISTED AND APPROVED RANGE TOP/OVEN AND HOOD EXHAUST VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL AND ELECTRICAL SHEETS
9. MICRO - MICROWAVE, SEE ID SHEETS
10. DW - DISHWASHER, SEE ID SHEETS
11. UC REF - REFRIGERATOR UNDERCOUNTER, SEE ID SHEETS
12. W/D - WASHER / DRYER ELECTRIC STACKED, VENT DRYER DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
13. W - WASHER SEE ID, PLUMBING AND ELECTRICAL SHEETS
14. D - DRYER ELECTRIC, VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
15. KITCHEN SINK TO BE UNDERMOUNT DISPOSAL AIR SWITCH ACTIVATED, SEE ID AND PLUMBING DRAWINGS
16. COUNTERTOPS TO BE SOLID SURFACE OR SIMILAR NON-ABSORBENT MATERIAL, SEE ID SHEETS
17. UPPER CABINET(S) LOCATIONS, SEE ID SHEETS
18. BASE CABINET(S) LOCATIONS, SEE ID SHEETS
19. CLOSET SHELF, ROD AND OR BUILT-IN SHELVING, SEE ID, SHEETS
20. RECESSED MEDICINE CABINET LOCATIONS, SEE ID, SHEETS
21. MIRROR LOCATIONS, SEE ID, SHEETS
22. BATHTUB WITH SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SEE ID, AND PLUMBING SHEETS
23. SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SLIDING GLASS BYPASS SHOWER DOOR WITH TEMPERED GLASS, SEE ID, AND PLUMBING SHEETS
24. SMOKE DETECTORS LOCATIONS, SEE ELECTRICAL SHEETS
25. WALL MOUNTED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
26. RECESSED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
27. CEILING FAN AT EACH BEDROOM AND LIVING ROOM, PROVIDE REQUIRED BRACING, SEE ID, AND ELECTRICAL SHEETS

WALL TYPE ASSEMBLIES



WALL TYPES INDICATED ON THESE PLANS TO BE WALL TYPE 1A AT LOCATIONS INDICATED ON SHEETS A1.11 AND A1.12 FSD AND FIRE RATED PLAN

WALL NOTES:

1 USE 5/8" TYPE X GYPSUM BOARD @ INTERIOR SIDE OF STORAGE AND MECHANICAL ROOMS
2 USE 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL DAMP AREAS
3 USE 1/2" CEMENT BOARD UNDER CERAMIC TILE AND ALL INTERIOR STONE/BRICK VENEERS
4 PROVIDE FULL DEPTH INSULATION IN EXTERIOR WALL CAVITIES
5 PROVIDE FULL DEPTH THERMAL INSULATION IN FURRING @ EXTERIOR WALLS. USE RIGID FOAM IN CAVITIES LESS THAN 3 1/2" DEEP
6 OWNER OPTION PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE IF ON CONCRETE

SYNECTIC DESIGN
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REGISTERED ARCHITECT
CERTIFICATE
LANCE D. BAKER
35529
LANCE D. BAKER
Date Signed 10/22/20
ARIZONA, U.S.A.
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-10-22
Sheet:

A2.1

FLOOR PLAN
UNIT TYPE A

ELEVATIONS & FLOOR PLANS

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SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL

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17 4" CONCRETE SLAB WITH THICKENED EDGE OVER 4" A.B.C. SLOPE 1/8" / 12" AWAY FOR BUILDING BROOM FINISH PERPENDICULAR TO SLOPE, SEE STRUCTURAL, AND CIVIL SHEETS

GENRAL PLAN NOTES:

1. SEE ID DRAWING SHEETS FOR FINISH PLAN, REFLECTED CEILING PLAN, INTERIOR ELEVATIONS, FINISHES, FIXTURES, AND ADDITON INFORMATION AS NOTED.
2. SEE SHEET A8.1 FOR DOOR AND WINDOW TYPE, SIZE, AND ADDITIONAL INFORMATION
3. METER - ELECTRICAL METER (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
4. PANEL - ELECTRICAL DISTRIBUTION PANEL (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
5. RTU - ROOF TOP HVAC UNIT CURB MOUNTED SCREENED BY PARAPET OR ATTACHED PRE-MANUFACTURED SCREEN, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
6. WH - ELECTRIC WATER HEATER, SEE ID, PLUMBING AND ELECTRICAL SHEETS
7. REF - REFRIGERATOR, SEE ID SHEETS
8. R/O HOOD - LISTED AND APPROVED RANGE TOP/OVEN AND HOOD EXHAUST VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL AND ELECTRICAL SHEETS
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10. DW - DISHWASHER, SEE ID SHEETS
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12. W/D - WASHER / DRYER ELECTRIC STACKED, VENT DRYER DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
13. W - WASHER SEE ID, PLUMBING AND ELECTRICAL SHEETS
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16. COUNTERTOPS TO BE SOLID SURFACE OR SIMILAR NON-ABSORBENT MATERIAL, SEE ID SHEETS
17. UPPER CABINET(S) LOCATIONS, SEE ID SHEETS
18. BASE CABINET(S) LOCATIONS, SEE ID SHEETS
19. CLOSET SHELF, ROD AND OR BUILT-IN SHELVING, SEE ID, SHEETS
20. RECESSED MEDICINE CABINET LOCATIONS, SEE ID, SHEETS
21. MIRROR LOCATIONS, SEE ID, SHEETS
22. BATHTUB WITH SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SEE ID, AND PLUMBING SHEETS
23. SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT. SLIDING GLASS BYPASS SHOWER DOOR WITH TEMPERED GLASS, SEE ID, AND PLUMBING SHEETS
24. SMOKE DETECTORS LOCATIONS, SEE ELECTRICAL SHEETS
25. WALL MOUNTED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
26. RECESSED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
27. CEILING FAN AT EACH BEDROOM AND LIVING ROOM. PROVIDE REQUIRED BRACING, SEE ID, AND ELECTRICAL SHEETS

SYNECTIC DESIGN
1111 West University Drive, Suite 104, Tempe, AZ 85281
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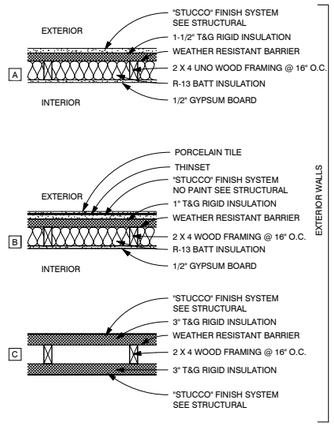
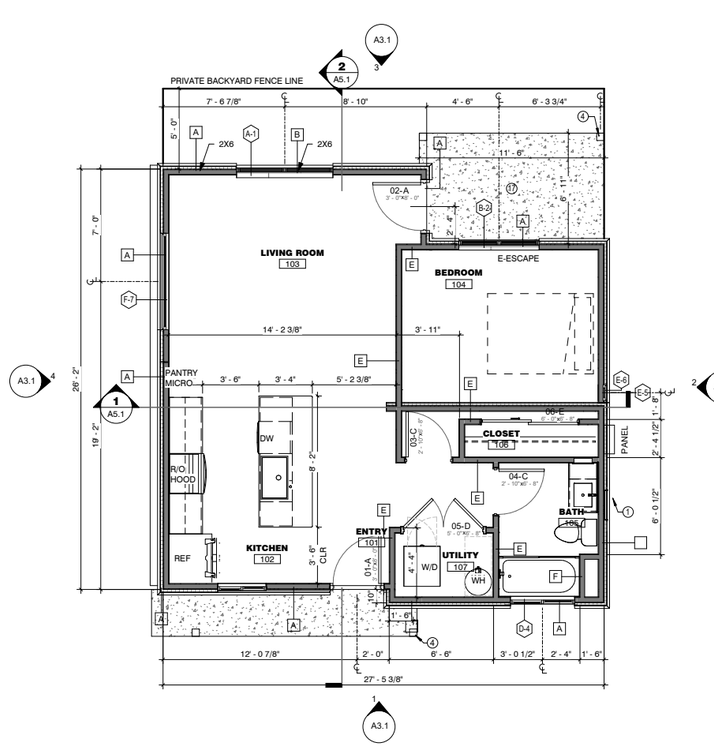
WALL TYPE ASSEMBLIES



WALL TYPES INDICATED ON THESE PLANS TO BE WALL TYPE 1A AT LOCATIONS INDICATED ON SHEETS A1.11 AND A1.12 FSD AND FIRE RATED PLAN



1 Floor Plan
1/4" = 1'-0"

WALL NOTES:

1 USE 5/8" TYPE X GYPSUM BOARD @ INTERIOR SIDE OF STORAGE AND MECHANICAL ROOMS
2 USE 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL DAMP AREAS
3 USE 1/2" CEMENT BOARD UNDER CERAMIC TILE AND ALL INTERIOR STONE/BRICK VENEERS
4 PROVIDE FULL DEPTH INSULATION IN EXTERIOR WALL CAVITIES
5 PROVIDE FULL DEPTH THERMAL INSULATION IN FURRING @ EXTERIOR WALLS. USE RIGID FOAM IN CAVITIES LESS THAN 3 1/2" DEEP
6 OWNER OPTION PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE IF ON CONCRETE

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A2.1

FLOOR PLAN
UNIT TYPE A

ELEVATIONS & FLOOR PLANS

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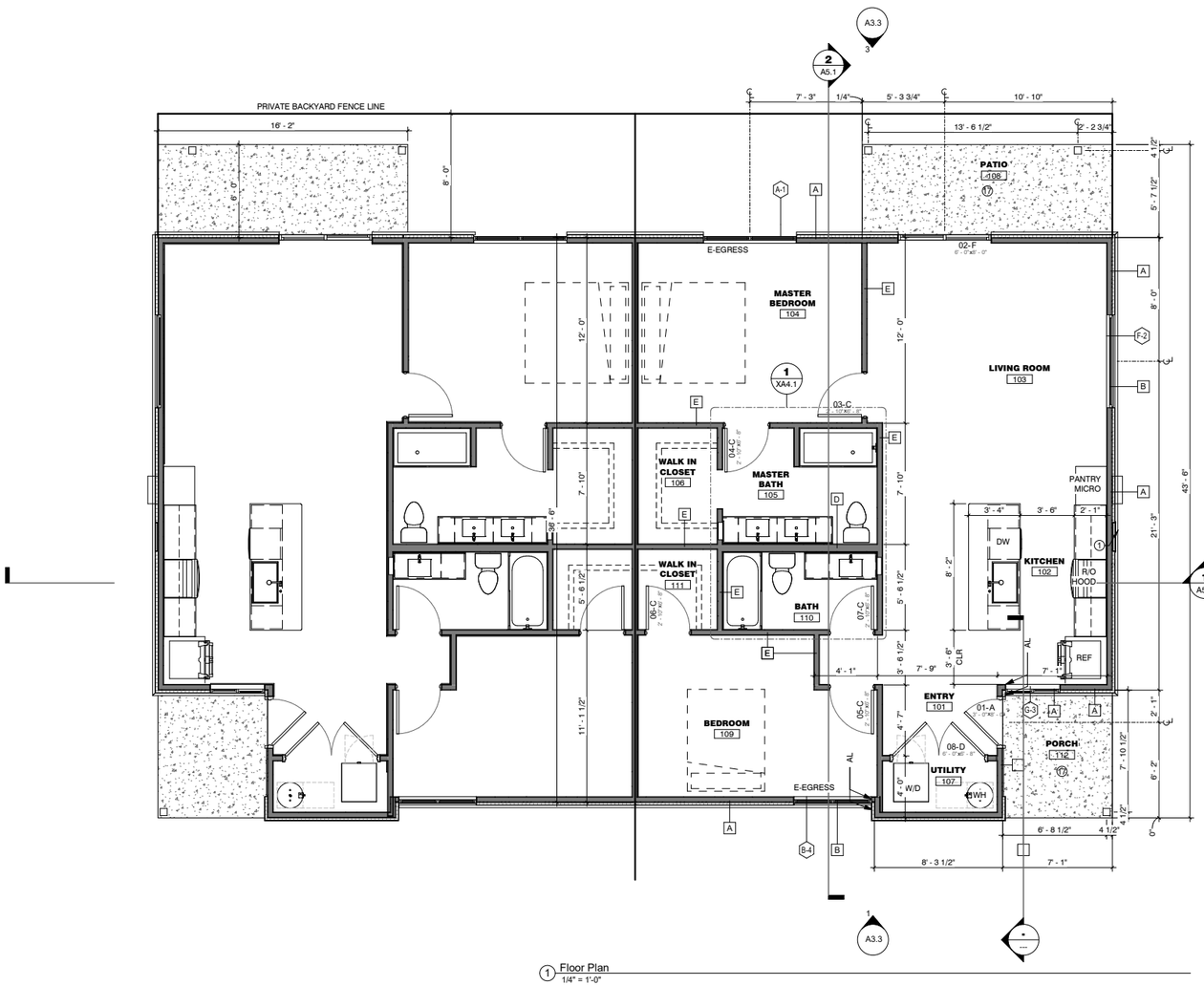
SHEET KEYED NOTES

1 FIRE SPRINKLER EQUIPMENT ACCESS PANEL PAINT TO MATCH WALL, AT BUILDINGS DELINEATED TO BE SPRINKLERED ON SHEETS A1.11 AND A1.12. SEE FIRE SPRINKLERS / FIRE PROTECTION DEFERRED SUBMITTAL

17 4" CONCRETE SLAB WITH THICKENED EDGE OVER 4" A.B.C. SLOPE 1/8" / 12" AWAY FOR BUILDING BROOM FINISH PERPENDICULAR TO SLOPE, SEE STRUCTURAL, AND CIVIL SHEETS



1 Floor Plan
1/4" = 1'-0"

GENRAL PLAN NOTES:

1. SEE ID DRAWING SHEETS FOR FINISH PLAN, REFLECTED CEILING PLAN, INTERIOR ELEVATIONS, FINISHES, FIXTURES, AND ADDITON INFORMATION AS NOTED.
2. SEE SHEET A8.1 FOR DOOR AND WINDOW TYPE, SIZE, AND ADDITIONAL INFORMATION
3. METER - ELECTRICAL METER (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
4. PANEL - ELECTRICAL DISTRIBUTION PANEL (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
5. RTU - ROOF TOP HVAC UNIT CURB MOUNTED SCREENED BY PARAPET OR ATTACHED PRE-MANUFACTURED SCREEN, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
6. WH - ELECTRIC WATER HEATER, SEE ID, PLUMBING AND ELECTRICAL SHEETS
7. REF - REFRIGERATOR, SEE ID SHEETS
8. R/O HOOD - LISTED AND APPROVED RANGE TOP/OVEN AND HOOD EXHAUST VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL AND ELECTRICAL SHEETS
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18. BASE CABINET(S) LOCATIONS, SEE ID SHEETS
19. CLOSET SHELF, ROD AND OR BUILT-IN SHELVING, SEE ID, SHEETS
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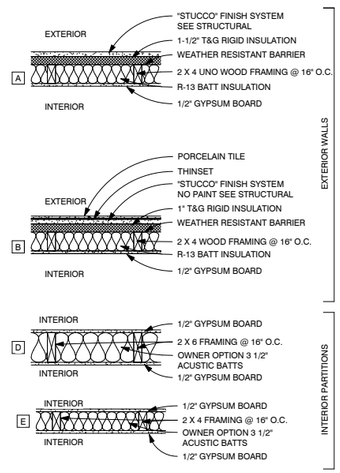
21. MIRROR LOCATIONS, SEE ID, SHEETS
22. BATHTUB WITH SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SEE ID, AND PLUMBING SHEETS
23. SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SLIDING GLASS BYPASS SHOWER DOOR WITH TEMPERED GLASS, SEE ID, AND PLUMBING SHEETS
24. SMOKE DETECTORS LOCATIONS, SEE ELECTRICAL SHEETS
25. WALL MOUNTED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
26. RECESSED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
27. CEILING FAN AT EACH BEDROOM AND LIVING ROOM, PROVIDE REQUIRED BRACING, SEE ID, AND ELECTRICAL SHEETS

WALL TYPE ASSEMBLIES



WALL TYPES INDICATED ON THESE PLANS TO BE WALL TYPE 1A AT LOCATIONS INDICATED ON SHEETS A1.11 AND A1.12 FSD AND FIRE RATED PLAN

WALL NOTES:

1 USE 5/8" TYPE X GYPSUM BOARD @ INTERIOR SIDE OF STORAGE AND MECHANICAL ROOMS
2 USE 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL DAMP AREAS
3 USE 1/2" CEMENT BOARD UNDER CERAMIC TILE AND ALL INTERIOR STONE/BRICK VENEERS
4 PROVIDE FULL DEPTH INSULATION IN EXTERIOR WALL CAVITIES
5 PROVIDE FULL DEPTH THERMAL INSULATION IN FURRING @ EXTERIOR WALLS. USE RIGID FOAM IN CAVITIES LESS THAN 3 1/2" DEEP
6 OWNER OPTION PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE IF ON CONCRETE

SYNECTIC DESIGN
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f:480.948.9211

REGISTERED ARCHITECT
CERTIFICATE
35229
LANCE D. BAKER
ARIZONA, U.S.A.
EXP. 12/31/2021

REVISIONS

Phase:	PDP
Drawn By:	BLB
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-10-22

Sheet:

A2.3

FLOOR PLAN
UNIT TYPE B

ELEVATIONS & FLOOR PLANS

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SHEET KEYED NOTES

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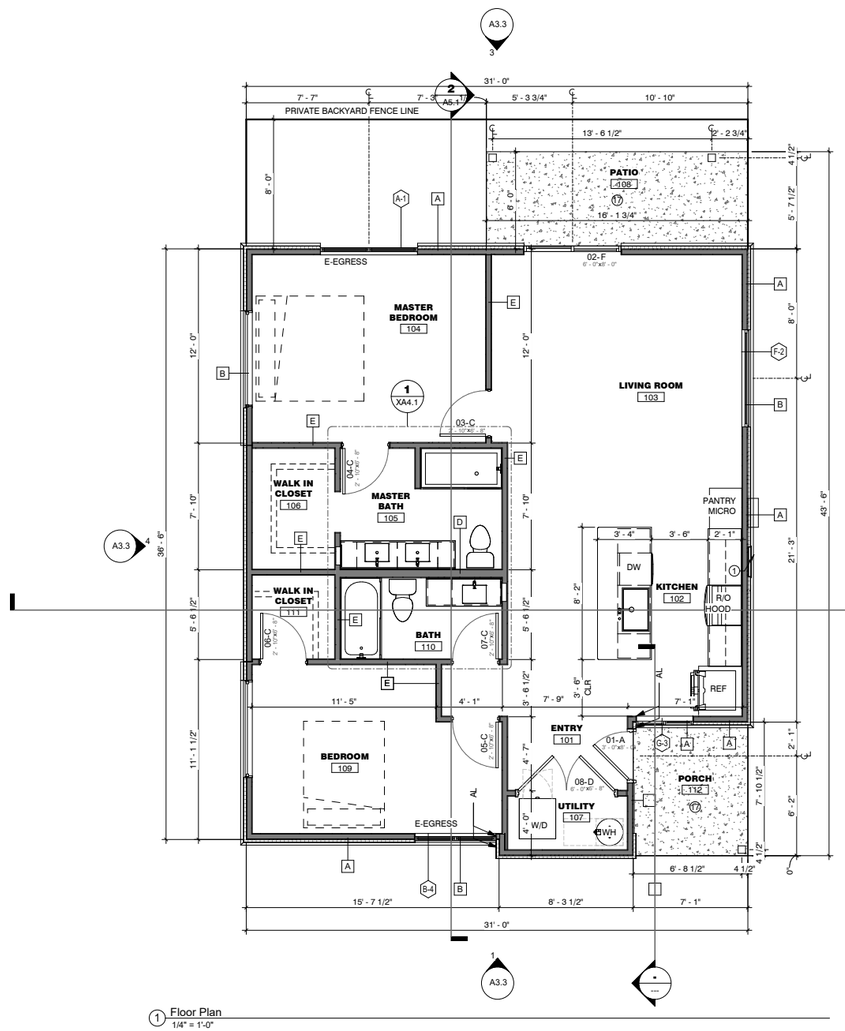
17 4" CONCRETE SLAB WITH THICKENED EDGE OVER 4" A.B.C. SLOPE 1/8" / 12" AWAY FOR BUILDING BROOM FINISH PERPENDICULAR TO SLOPE, SEE STRUCTURAL, AND CIVIL SHEETS



1 Floor Plan
1/4" = 1'-0"

GENRAL PLAN NOTES:

1. SEE ID DRAWING SHEETS FOR FINISH PLAN, REFLECTED CEILING PLAN, INTERIOR ELEVATIONS, FINISHES, FIXTURES, AND ADDITON INFORMATION AS NOTED.
2. SEE SHEET A8.1 FOR DOOR AND WINDOW TYPE, SIZE, AND ADDITIONAL INFORMATION
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4. PANEL - ELECTRICAL DISTRIBUTION PANEL (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
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6. WH - ELECTRIC WATER HEATER, SEE ID, PLUMBING AND ELECTRICAL SHEETS
7. REF - REFRIGERATOR, SEE ID SHEETS
8. R/O HOOD - LISTED AND APPROVED RANGE TOP/OVEN AND HOOD EXHAUST VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL AND ELECTRICAL SHEETS
9. MICRO - MICROWAVE, SEE ID SHEETS
10. DW - DISHWASHER, SEE ID SHEETS
11. UC REF - REFRIGERATOR UNDERCOUNTER, SEE ID SHEETS
12. W/D - WASHER / DRYER ELECTRIC STACKED, VENT DRYER DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
13. W - WASHER SEE ID, PLUMBING AND ELECTRICAL SHEETS
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15. KITCHEN SINK TO BE UNDERMOUNT DISPOSAL AIR SWITCH ACTIVATED, SEE ID AND PLUMBING DRAWINGS
16. COUNTERTOPS TO BE SOLID SURFACE OR SIMILAR NON-ABSORBENT MATERIAL, SEE ID SHEETS
17. UPPER CABINET(S) LOCATIONS, SEE ID SHEETS
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19. CLOSET SHELF, ROD AND OR BUILT-IN SHELVING, SEE ID, SHEETS
20. RECESSED MEDICINE CABINET LOCATIONS, SEE ID, SHEETS
21. MIRROR LOCATIONS, SEE ID, SHEETS
22. BATHTUB WITH SHOWER, PROVIDE NONABSORBENT WALL SURFACE TO 6'-0" A.F.F. MINIMUM REQUIREMENT, SEE ID, AND PLUMBING SHEETS
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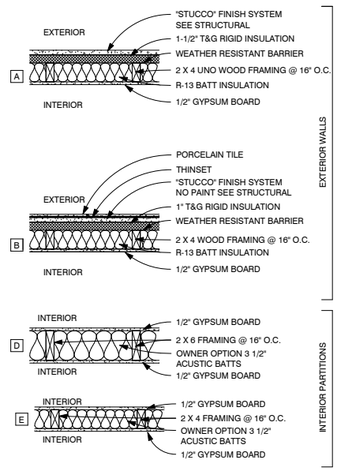
27. CEILING FAN AT EACH BEDROOM AND LIVING ROOM, PROVIDE REQUIRED BRACING, SEE ID, AND ELECTRICAL SHEETS

WALL TYPE ASSEMBLIES



WALL TYPES INDICATED ON THESE PLANS TO BE WALL TYPE 1A AT LOCATIONS INDICATED ON SHEETS A1.11 AND A1.12 FSD AND FIRE RATED PLAN

WALL NOTES:

1 USE 5/8" TYPE X GYPSUM BOARD @ INTERIOR SIDE OF STORAGE AND MECHANICAL ROOMS
2 USE 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL DAMP AREAS
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6 OWNER OPTION PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE IF ON CONCRETE

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REGISTERED ARCHITECT
CERTIFICATE
Lance D. Baker
35529
LANCE D. BAKER
DATE SIGNED/SEALED
ARIZONA, U.S.A.
EXP. 12/31/2021

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2020-07-28
Sheet:

A2.3

FLOOR PLAN
UNIT TYPE B

ELEVATIONS & FLOOR PLANS

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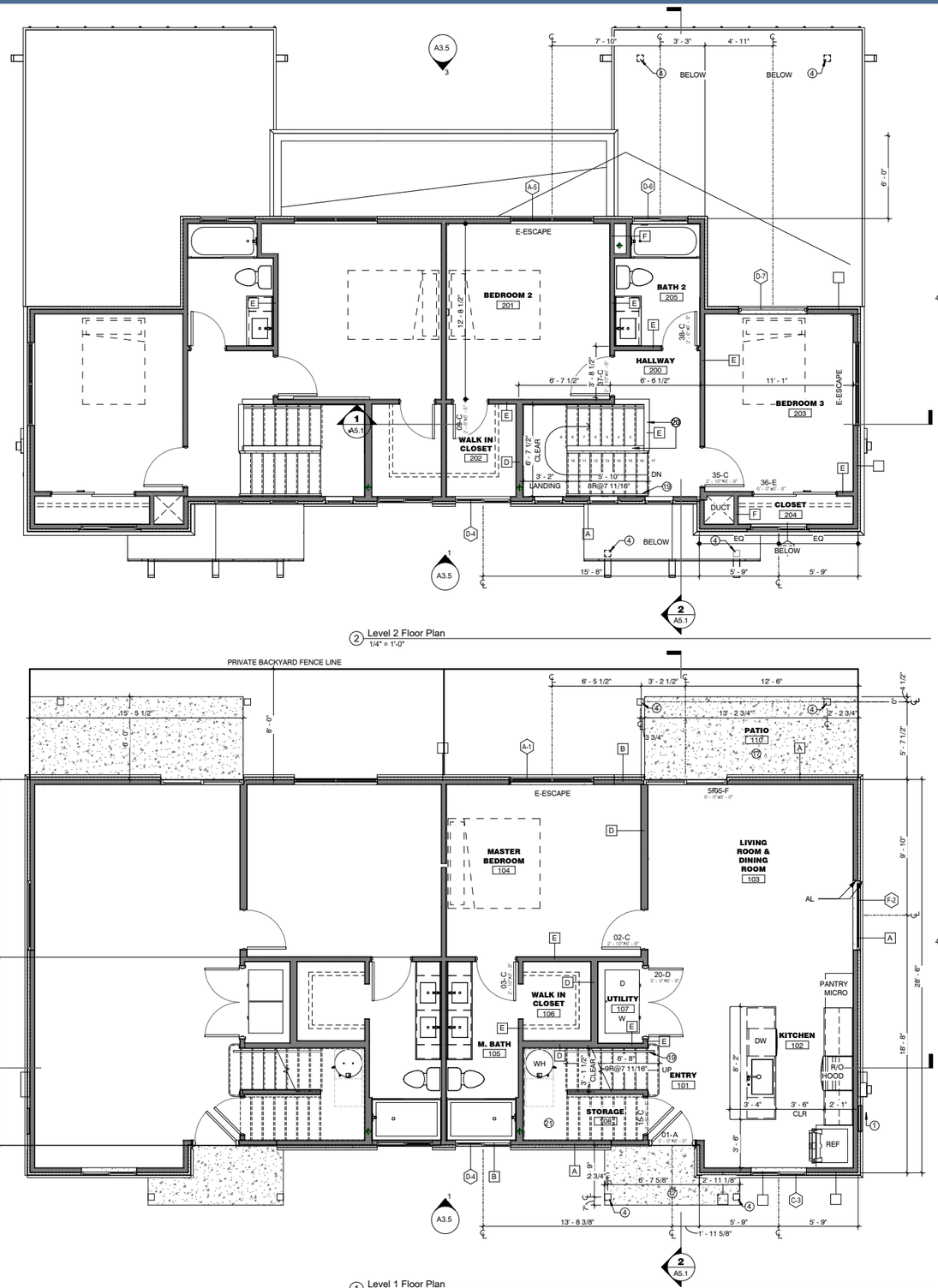
4	WOOD POST FOR SHADE CANOPY WITH 1X TRIM AT TOP AND BASE CONNECTIONS, SEE STRUCTURAL SHEETS
17	4" CONCRETE SLAB WITH THICKENED EDGE OVER 4" A.B.C. SLOPE 1/8" / 12" AWAY FOR BUILDING BROOM FINISH PERPENDICULAR TO SLOPE, SEE STRUCTURAL, AND CIVIL SHEETS
19	WOOD HANDRAIL AT 35" ABOVE NOSE OF TREAD WALL MOUNTED RETURN TO WALL AT ENDS AND NEWEL POST ON FIRST TREAD
20	PARTIAL HEIGHT WALL 36" AFF RAKE PARALLEL TO STAIR SLOPE WITH WOOD CAP
21	5/8" GYPSUM BOARD APPLIED TO UNDERSIDE OF STAIRS AND LANDING



2 Level 2 Floor Plan
1/4" = 1'-0"

1 Level 1 Floor Plan
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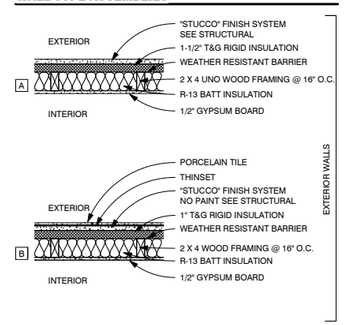
WALL TYPE ASSEMBLIES



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REGISTERED ARCHITECT
CERTIFICATE
LANCE D. BAKER
55529
ARIZONA U.S.A.
EXP. 12/31/2021

REVISIONS

Phase:	PDP
Drawn By:	BLB
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-10-23
Sheet:	**A2.5**

FLOOR PLANS
UNIT TYPE C

ELEVATIONS & FLOOR PLANS

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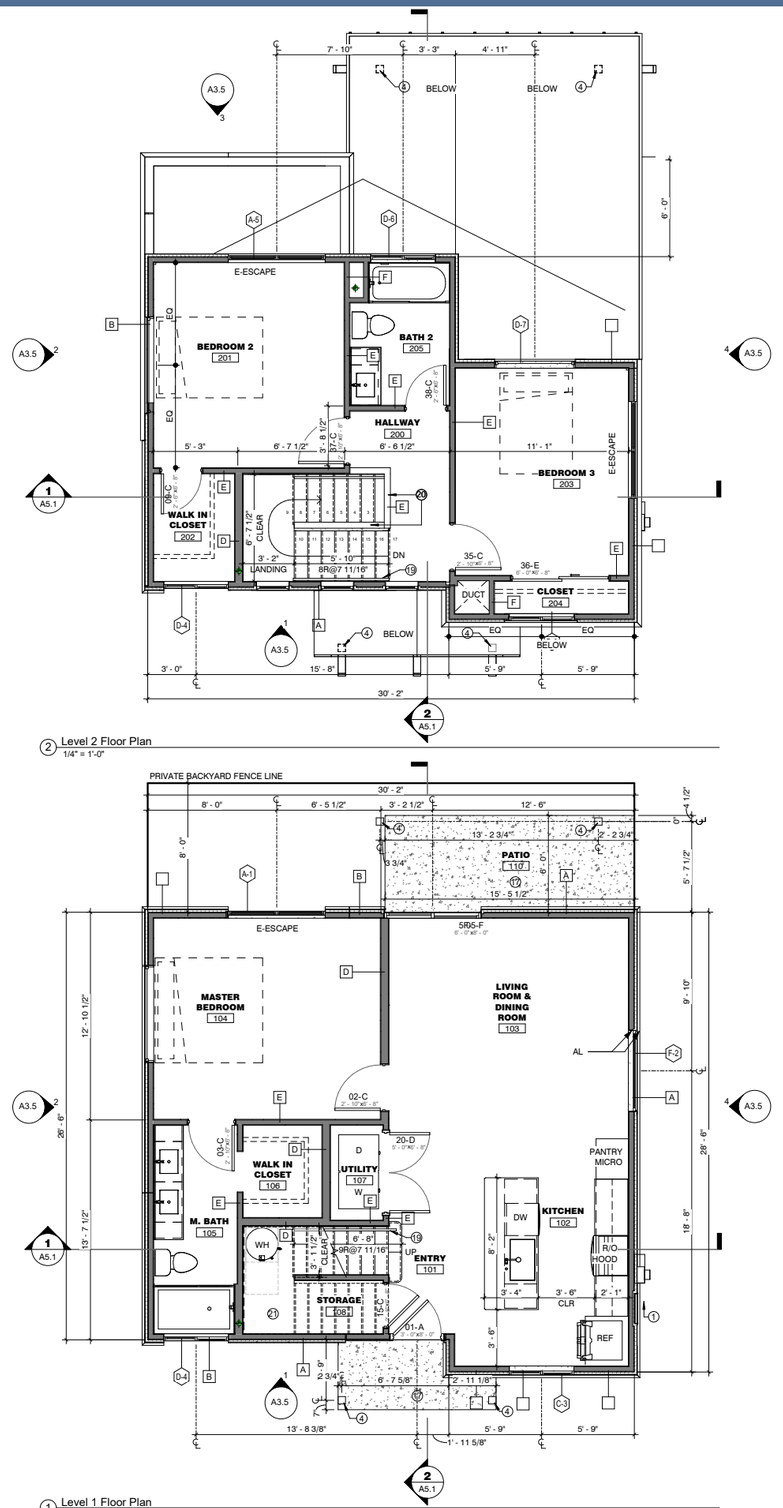

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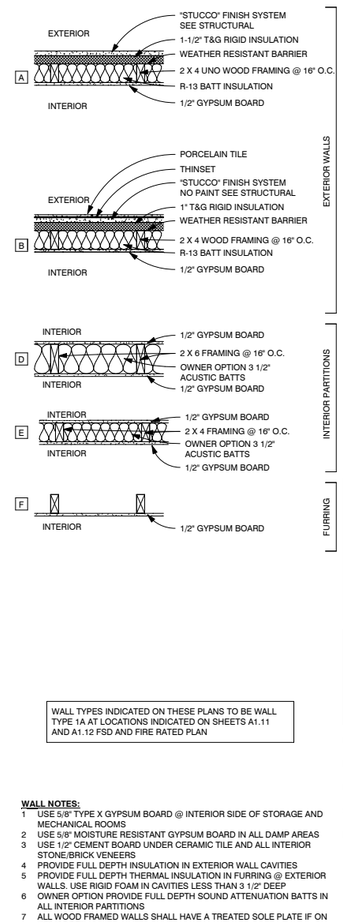

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REVISIONS

Phase:	PDP
Drawn By:	BLB
Reviewd By:	LDB
SDI Project No:	4014
Date:	2020-07-28
Sheet:	**A2.5**

FLOOR PLANS
UNIT TYPE C

ELEVATIONS & FLOOR PLANS

SHEET KEYED NOTES

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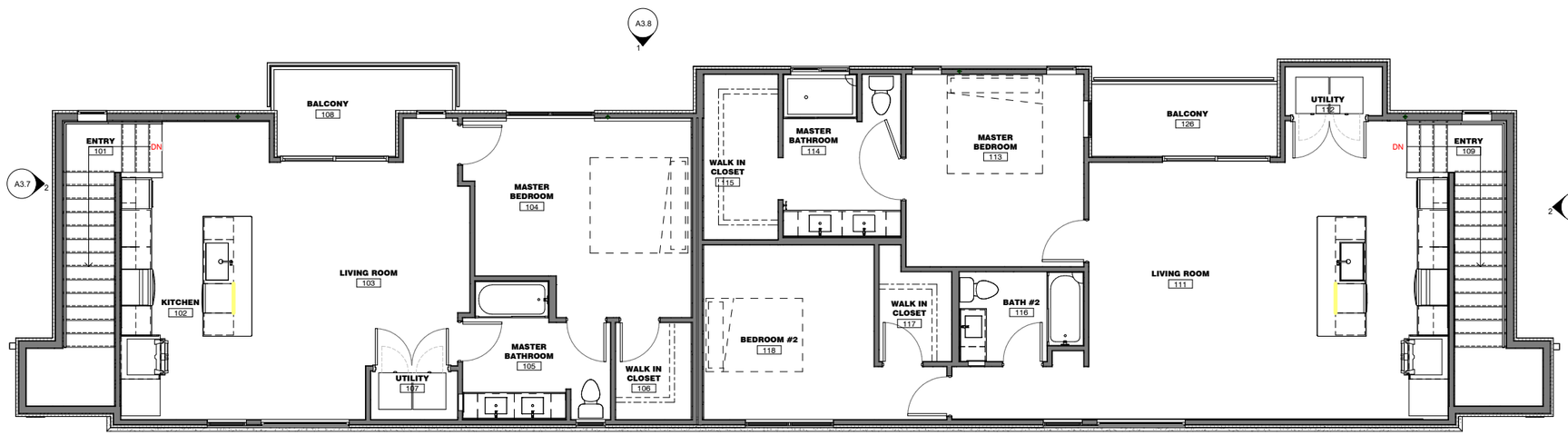
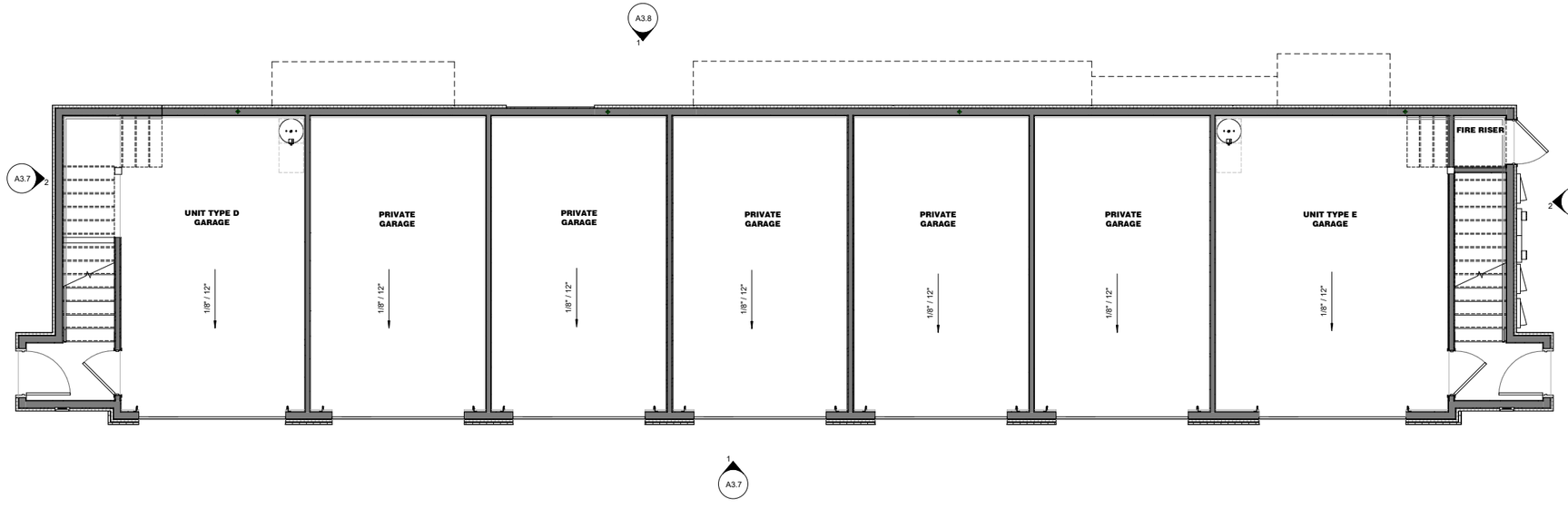


2 UNIT D and E Level 2 Floor Plan
1/4" = 1'-0"



1 UNIT D and E Level 1 Floor Plan
1/4" = 1'-0"

WALL TYPE ASSEMBLIES

EXTERIOR WALLS

A
EXTERIOR
- "STUCCO" FINISH SYSTEM SEE STRUCTURAL
- 1-1/2" T&G RIGID INSULATION
- WEATHER RESISTANT BARRIER
- PLYWOOD SHEATHING @ A1
- 2 X 4 WOOD FRAMING @ 16" O.C.
- 2 X 6 WOOD FRAMING @ 16" O.C. @ A1 and A2
- R-13 BATT INSULATION
- 1/2" GYPSUM BOARD
- 5/8" GYPSUM BOARD @ A1 and A2

A1
A2
INTERIOR

B
EXTERIOR
- CERAMIC TILE
- "STUCCO" FINISH SYSTEM NO PAINT SEE STRUCTURAL
- 1" T&G RIGID INSULATION
- WEATHER RESISTANT BARRIER
- 2 X 4 WOOD FRAMING @ 16" O.C.
- R-13 BATT INSULATION
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INTERIOR

INTERIOR PARTITIONS

D
INTERIOR
- 1/2" GYPSUM BOARD
- 2 X 6 FRAMING @ 16" O.C.
- OWNER OPTION 3 1/2" ACUSTIC BATTS
- 1/2" GYPSUM BOARD

INTERIOR

E
INTERIOR
- 1/2" GYPSUM BOARD
- 2 X 4 FRAMING @ 16" O.C.
- OWNER OPTION 3 1/2" ACUSTIC BATTS
- 1/2" GYPSUM BOARD

INTERIOR

E1
INTERIOR
- 5/8" TYPE 'X' GYPSUM BOARD
- 2 x 4 FRAMING @ 16" O.C.
- 3 1/2" ACUSTIC BATTS
- 5/8" TYPE 'X' GYPSUM BOARD

INTERIOR
UL - U305 1-HOUR

FURRING

F
- 2 x 6 FRAMING @ 16" O.C. SEE PLAN FOR DIM
- 1/2" GYPSUM BOARD

INTERIOR

G
- 2 x 4 FRAMING @ 16" O.C. SEE PLAN FOR DIM
- 1/2" GYPSUM BOARD

INTERIOR

SHEAR WALLS

H
INTERIOR
- 1/2" GYPSUM BOARD
- 1/2" PLYWOOD SHEATHING
- 2 x 4 FRAMING @ 16" O.C. SEE PLAN FOR DIM
- 1/2" PLYWOOD SHEATHING
- 1/2" GYPSUM BOARD

INTERIOR

H1
GARAGE
- 5/8" TYPE 'X' GYPSUM BOARD
- 1/2" PLYWOOD SHEATHING
- 2 x 4 FRAMING @ 16" O.C. SEE PLAN FOR DIM
- 1/2" PLYWOOD SHEATHING
- 5/8" TYPE 'X' GYPSUM BOARD

GARAGE
UL - U356 1-HOUR

H2
INTERIOR
- 1/2" GYPSUM BOARD
- 1/2" PLYWOOD SHEATHING
- 2 x 4 FRAMING @ 16" O.C. SEE PLAN FOR DIM
- 1/2" PLYWOOD SHEATHING
- 5/8" GYPSUM BOARD

GARAGE

SEPARATION WALLS

J
INTERIOR
- (2) LAYERS OF 5/8" TYPE 'X' GYPSUM BOARD
- 2 x 4 FRAMING @ 16" O.C. (STAGGERED)
- 3-1/2" MINERAL FIBER INSULATION
- (2) LAYERS OF 5/8" TYPE 'X' GYPSUM BOARD

INTERIOR
UL - U376
STC 55

NOTES:
1 USE 5/8" TYPE X GYPSUM BOARD @ INTERIOR SIDE OF STORAGE AND MECHANICAL ROOMS
2 USE 5/8" MOISTURE RESISTANT GYPSUM BOARD IN ALL DAMP AREAS
3 USE 1/2" CEMENT BOARD UNDER CERAMIC TILE AND ALL INTERIOR STONE/BRICK VENEERS
4 PROVIDE FULL DEPTH INSULATION IN EXTERIOR WALL CAVITIES
5 PROVIDE FULL DEPTH THERMAL INSULATION IN FURRING @ EXTERIOR WALLS. USE RIGID FOAM IN CAVITIES LESS THAN 3 1/2" DEEP
6 PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE

SYNECTIC DESIGN
1111 West University Drive, Suite 104, Tempe, AZ 85281
t:480.948.9766
f:480.948.9211

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2019-11-11
Sheet:

A2.7
FLOOR PLANS
UNIT TYPE D

ELEVATIONS & FLOOR PLANS

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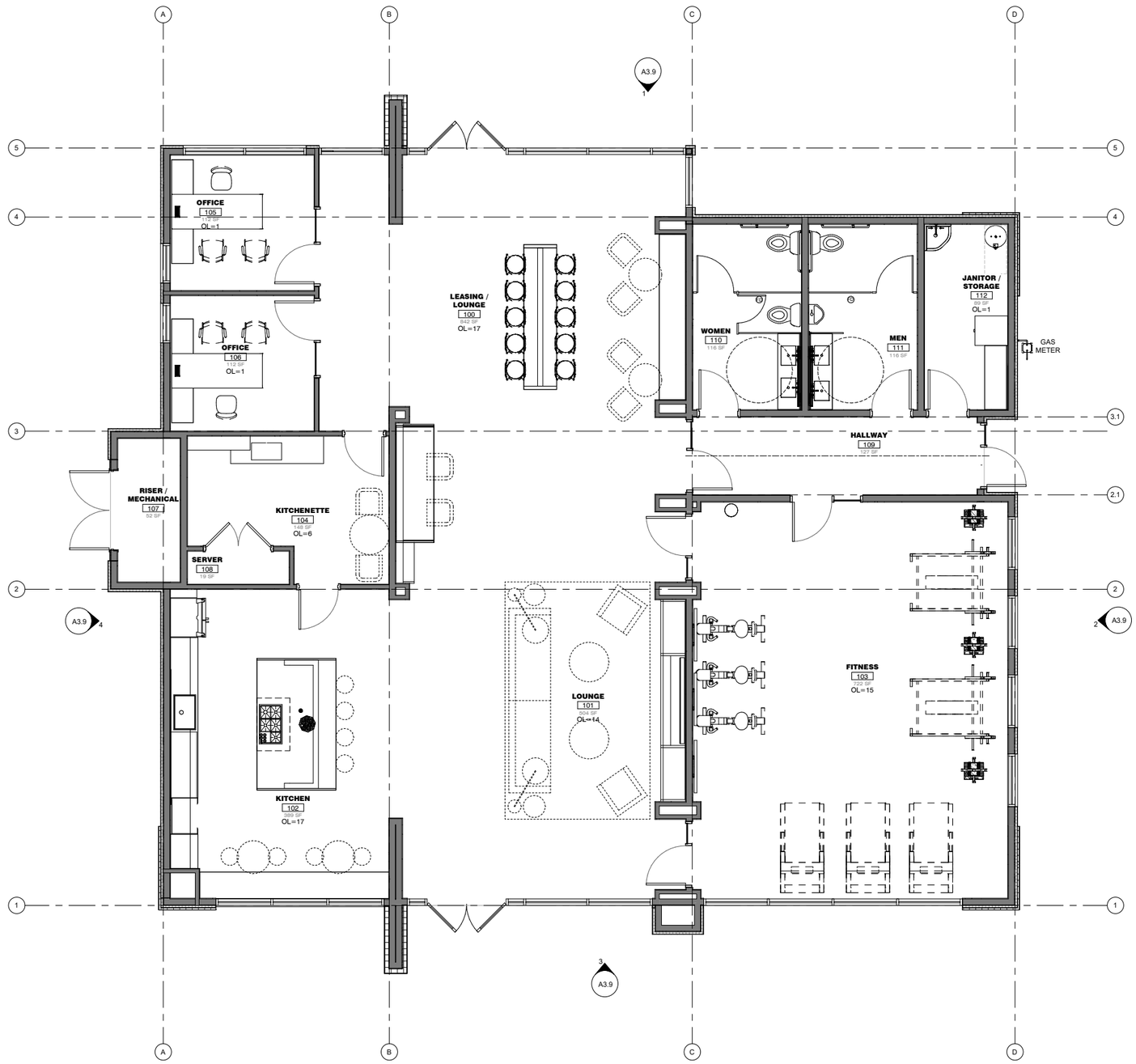
OCCUPANT LOAD:	AREA (SF)	LOAD FACTOR	OCCUPANT LOAD
BUSINESS			
RM 105 - OFFICE	112	150 GROSS	0.75
RM 106 - OFFICE	112	150 GROSS	0.75
ASSEMBLY (UNCONCENTRATED)			
RM 100 - LEASING/LOUNGE	250	15 NET	16.7
RM 101 - LOUNGE	205	15 NET	13.7
RM 102 - KITCHEN	250	15 NET	16.7
RM 104 - KITCHENETTE	85	15 NET	5.6
FITNESS			
RM 103 - FITNESS	722	50 GROSS	14.4
ACCESSORY AREA			
RM 112 - JANITOR/STORAGE	89	300 GROSS	0.30
TOTAL			68.9



1 Clubhouse and Leasing Office Floor plan
1/4" = 1'-0"

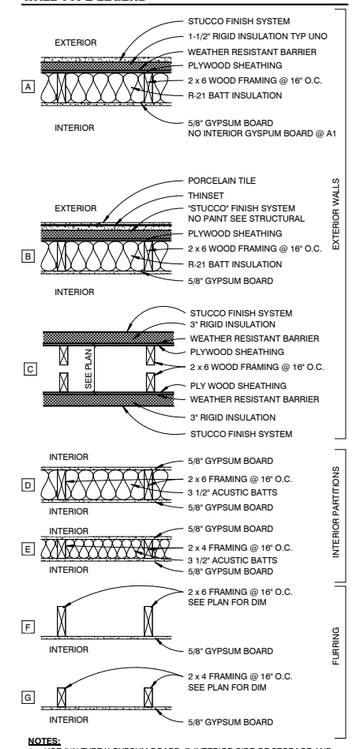
SHEET KEYED NOTES

GENRAL PLAN NOTES:

1. SEE ID DRAWING SHEETS FOR FINISH PLAN, REFLECTED CEILING PLAN, INTERIOR ELEVATIONS, FINISHES, FIXTURES, BUILT-IN, AND ADDITON INFORMATION AS NOTED.
2. SEE SHEET A8.1 FOR DOOR AND WINDOW TYPE, SIZE, AND ADDITIONAL INFORMATION
3. METER - ELECTRICAL METER (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
4. PANEL - ELECTRICAL DISTRIBUTION PANEL (TYPICAL LOCATION UNLESS SHOWN OTHERWISE), SEE ELECTRICAL SHEETS
5. GAS METER - GAS METER, SEE PLUMBING SHEETS
6. RTU - ROOF TOP HVAC UNIT CURB MOUNTED SCREENED BY PARAPET OR ATTACHED PRE-MANUFACTURED SCREEN, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
7. WH - ELECTRIC WATER HEATER, SEE ID, PLUMBING AND ELECTRICAL SHEETS
8. REF - REFRIGERATOR, SEE ID SHEETS
9. COOKTOP & HOOD - LISTED AND APPROVED RANGE TOP/OVEN AND HOOD EXHAUST VENT DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL AND ELECTRICAL SHEETS
10. MICRO - MICROWAVE, SEE ID SHEETS
11. DW - DISHWASHER, SEE ID SHEETS
12. WALL OVENS, SEE ID SHEETS
13. W/D - WASHER / DRYER ELECTRIC STACKED, VENT DRYER DIRECTLY TO EXTERIOR, SEE ID, MECHANICAL, PLUMBING AND ELECTRICAL SHEETS
14. KITCHEN SINK TO BE UNDERMOUNT DISPOSAL AIR SWITCH ACTIVATED, SEE ID AND PLUMBING DRAWINGS
15. COUNTERTOPS TO BE SOLID SURFACE OR SIMILAR NON-ABSORBENT MATERIAL, SEE ID SHEETS
16. UPPER CABINET(S) LOCATIONS, SEE ID SHEETS
17. BASE CABINET(S) LOCATIONS, SEE ID SHEETS
18. BUILT-IN SHELVING, SEE ID, SHEETS
19. MIRROR LOCATIONS, SEE ID, SHEETS
20. SMOKE DETECTORS LOCATIONS, SEE ELECTRICAL SHEETS
21. WALL MOUNTED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
22. RECESSED LIGHT FIXTURE LOCATIONS, SEE ID, AND ELECTRICAL SHEETS
23. CEILING FANS IN FITNESS ROOM, PROVIDE REQUIRED BRACING, SEE ID, AND ELECTRICAL SHEETS
24. SEE EXTERIOR ELEVATIONS FOR STOREFRONT SIZING

WALL TYPES INDICATED ON THESE PLANS TO BE WALL TYPE 1A AT LOCATIONS INDICATED ON SHEETS A1.11 AND A1.12 FSD AND FIRE RATED PLAN

WALL TYPE LEGEND



NOTES:
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6 PROVIDE FULL DEPTH SOUND ATTENUATION BATTS IN ALL INTERIOR PARTITIONS
7 ALL WOOD FRAMED WALLS SHALL HAVE A TREATED SOLE PLATE

SYNECTIC DESIGN
1111 West University Drive, Suite 104, Tempe, AZ 85281
t:480.948.9766
f:480.948.9211

ELEVATIONS & FLOOR PLANS

REVISIONS

Phase: PDP
Drawn By: BLB
Reviewd By: LDB
SDI Project No: 4014
Date: 2019-11-11
Sheet:

A2.8
FLOOR PLAN TYPE G

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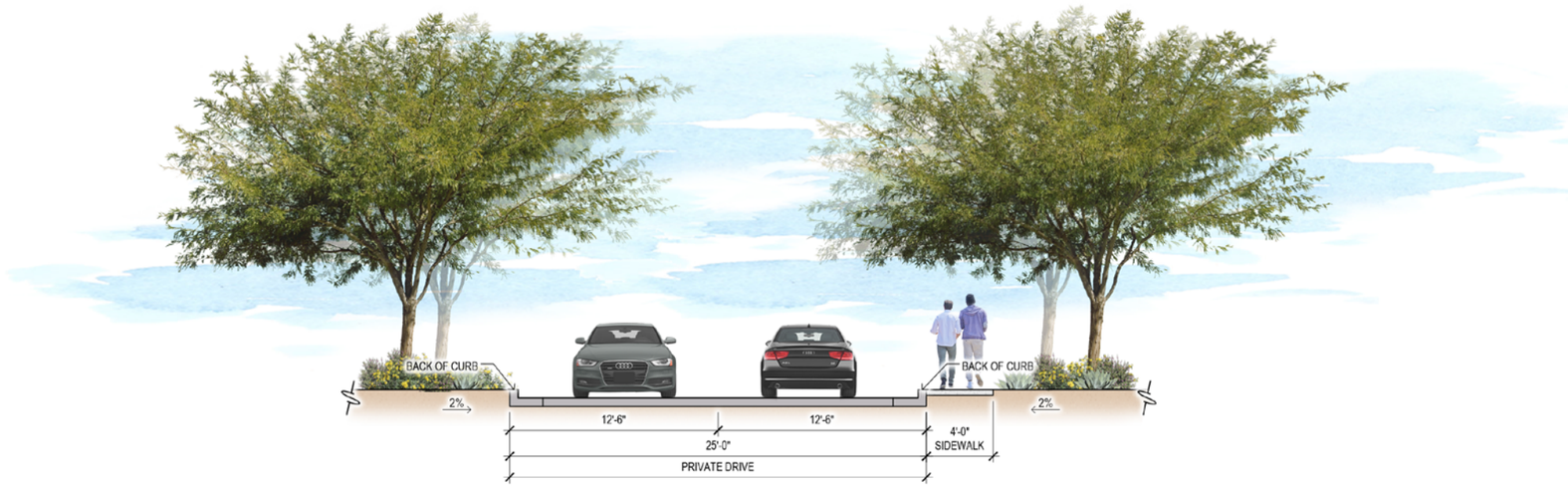
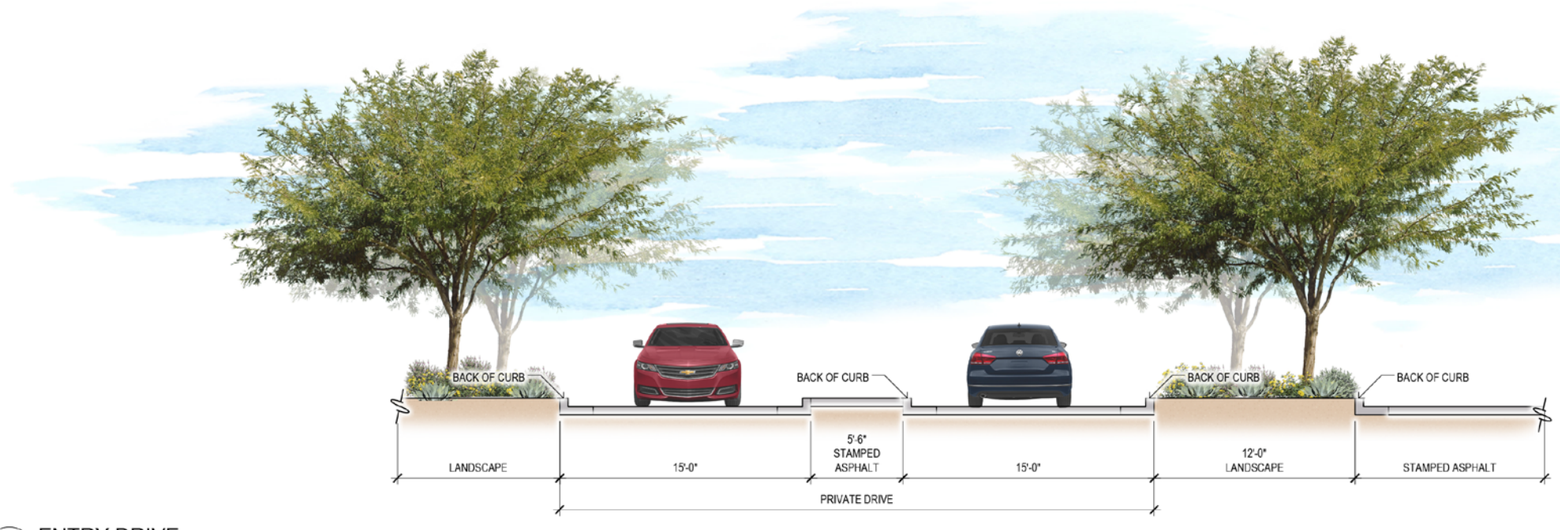
EXHIBIT Q: STREET SECTIONS



A DRIVE AISLE
SCALE: 1/4"=1'-0"



B ENTRY DRIVE
SCALE: 1/4"=1'-0"

EXHIBIT R: PARKING & TRASH LOCATION PLAN

PARKING		
TOTAL	REQUIRED	PROVIDED
COVERED	162	184
UNCOVERED	85	13
GUEST	40	40
GARAGE	NA	77
ADA ACCESSIBLE	13	13
TOTAL PARKING	**300**	**327**
TRASH ENCLOSURE		6

PRELIMINARY GRADING & DRAINAGE PLAN
MCQUEEN AND LOOP 202 MULTI-FAMILY
1855 S MCQUEEN RD., CHANDLER, AZ 85286

LOCATED IN A PORTION OF THE S 1/2 OF THE NW 1/4 OF THE SW 1/4 OF SECTION 2, T.2S, R.2E OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

LEGEND

- SECTION CORNER
- 1/4 QUARTER
- BRASS CAP IN HANDHOLE
- BRASS CAP FLUSH
- FOUND REBAR OR AS NOTED
- CALCULATED POINT
- PROPERTY LINE
- EASEMENT LINE
- MONUMENT LINE
- EXIST. SPOT ELEVATION (x21.12)
- COMMUNICATIONS LINE (C)
- CATV, PHONE (T)
- SEWER LINE (S)
- GAS LINE (G)
- WATER LINE (W)
- RECLAIMED WATER LINE (RW)
- OVERHEAD ELECTRIC LINE (OHE)
- FIRE HYDRANT
- SEWER MANHOLE
- WATER METER (WM)
- WATER VALVE
- FENCE
- EXISTING CONTOUR (1396)

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #		SUFFIX	BASE FLOOD ELEVATION
040040	2737&2739 OF 4425		M	
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE	
04013C	11/04/2015	11/04/2015	X*	N/A

*AREAS OF 0.2% ANNUAL CHANCE FLOOD;
AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE;
AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD

- SLOPE DIRECTION
- PROPOSED SPOT ELEVATION (XX.XX)
- PROPOSED CONTOUR (XXXX)
- DRAINAGE AREA DESIGNATION (DA-4)
- DRAINAGE AREA TRIBUTARY LINE
- ASPHALT CONCRETE PAVEMENT
- CONCRETE PAVEMENT
- DRYWELL
- CATCH BASIN
- STORM DRAIN PIPE

ON-SITE RETENTION FOR THE RUNOFF FROM 100-YEAR, 2-HOUR STORM EVENT

Vrequired=1.1(P/12)AC

P – PRECIPITATION DEPTH=2.2" | A – TRIBUTARY AREA SF | C – WEIGHTED RUNOFF COEFFICIENT

DRAINAGE AREA	AREA	RUNOFF COEFF.	VOLUME REQUIRED	RETENTION BASIN ID	CONTOUR ELEVATION		CONTOUR AREA	DEPTH	VOLUME PROVIDED
	S.F.	Cw	C.F.				S.F.	FT	C.F.
DA-1	447,298	0.80	72,033	1A	HW	23.00	8,734	3.00	13,994
					BOTTOM	20.00	595		
				1B	10"ø UG RETENTION PIPE (739 LF)				58,039
DA-2	22,454	0.80	3,616	2A	HW	25.50	3,651	2.00	3,716
					BOTTOM	23.50	65		
DA-3	5,782	0.80	931	3A	HW	25.50	1,317	1.00	977
					BOTTOM	24.50	636		
DA-4	2,703	0.80	435	4A	HW	24.50	609	1.00	445
					BOTTOM	23.50	280		
DA-5	4,057	0.80	653	5A	HW	24.50	1,033	1.00	655
					BOTTOM	23.50	277		
DA-6	4,190	0.80	675	6A	HW	24.50	1,081	1.00	711
					BOTTOM	23.50	340		
DA-7	3,095	0.80	498	7A	HW	24.50	671	1.00	528
					BOTTOM	23.50	385		
DA-8	2,703	0.80	435	8A	HW	24.00	609	1.00	445
					BOTTOM	23.00	280		
DA-9	3,095	0.80	498	9A	HW	24.00	671	1.00	528
					BOTTOM	23.00	385		
DA-10	3,325	0.80	535	10A	HW	23.50	721	1.00	541
					BOTTOM	22.50	360		
DA-11	2,711	0.80	437	11A	HW	23.50	623	1.00	456
					BOTTOM	22.50	289		
DA-12	7,821	0.80	1,259	12A	HW	24.00	2,020	1.00	1,277
					BOTTOM	23.00	533		
DA-13	64,074	0.80	10,318	13A	10"ø UG RETENTION PIPE (132 LF)				10,367
TOTAL	573,308		92,326						92,676

LEGAL DESCRIPTION

PARCEL NO. 1:
THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTH HALF OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 2;
THENCE NORTH 404.5 FEET TO THE POINT OF BEGINNING;
THENCE EAST, 350.00 FEET;
THENCE NORTH 125.00 FEET;
THENCE WEST, 350.00 FEET;
THENCE SOUTH, 125.00 FEET TO THE POINT OF BEGINNING; AND
EXCEPT THAT PORTION CONVEYED TO THE STATE OF ARIZONA, BY AND THROUGH ITS DEPARTMENT OF TRANSPORTATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2003-1550420, MARICOPA COUNTY, RECORDS; AND
EXCEPT THAT PORTION CONVEYED TO THE MARICOPA COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF ARIZONA IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2004-0003258, MARICOPA COUNTY RECORDS; AND
EXCEPT THE WEST 40.00 FEET OF SAID SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2.
PARCEL NO. 2:
THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
EXCEPT THAT PORTION CONVEYED TO THE STATE OF ARIZONA, BY AND THROUGH ITS DEPARTMENT OF TRANSPORTATION IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2002-1329840, MARICOPA COUNTY, RECORDS.

NOTE: R/W DEDICATION PER DOC. 2018-0410566, MCR (NOT SHOWN ON DEED)

BASIS OF BEARINGS

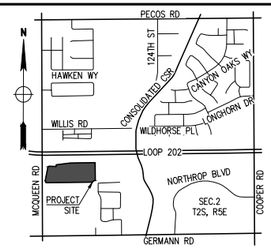
SOUTH LINE OF THE SE 1/4 OF SEC. 2, T.1S, R.5E, BEARING N89°15'07"E PER CHANDLER AIRPORT CENTER PHASE 2, BOOK 658, PAGE 43, MCR.

BENCHMARK

CITY OF CHANDLER BRASS CAP IN HAND HOLE AT THE INTERSECTION OF TUMBLEWEED PARK ROAD AND PIONEER PARKWAY, 1300' SOUTH OF GERMANN RD AND 700' WEST OF MCQUEEN RD, THE ELEVATION OF WHICH IF 1224.41, CITY OF CHANDLER DATUM, NAVD 88.

UTILITIES

WATER: CITY OF CHANDLER
SANITARY SEWER: CITY OF CHANDLER
ELECTRIC: SRP
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: SOUTHWEST GAS
CABLE TV: CENTURY LINK, COX COMMUNICATIONS



VICINITY MAP

NTS

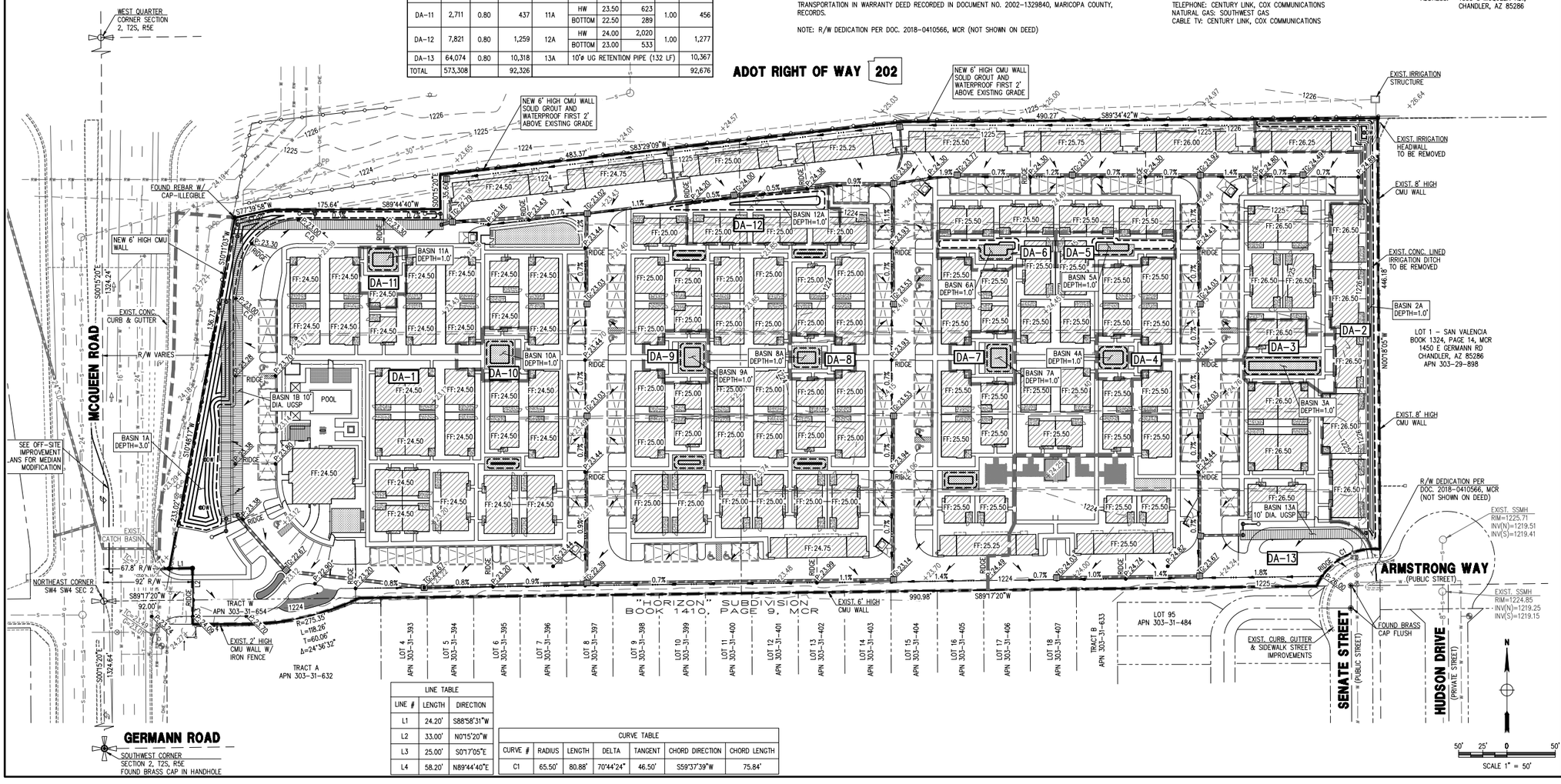
OWNER

PUPP/FEATHERS LLLP
460 E AUTO CENTER DR.,
MESA, AZ 85204

SITE DATA

APN: 303-29-014H & 303-29-014J
ADDRESS: 1855 S MCQUEEN RD., CHANDLER, AZ 85286

ADOT RIGHT OF WAY 202



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	24.20'	S88°58'31"W
L2	33.00'	N01°15'20"W
L3	25.00'	S01°17'05"E
L4	58.20'	N89°44'40"E

CURVE TABLE						
CURVE #	RADIUS	LENGTH	DELTA	TANGENT	CHORD DIRECTION	CHORD LENGTH
C1	65.50'	80.88'	70°44'24"	46.50'	S59°37'39"W	75.84'

DATE: 10/23/20
SCALE: 1"=50'
JOB: 1910241
DESIGNED BY: NP
VERSION: 1.1
DRAWN BY: DW
CHECKED BY: JF
PLOT DATE: 10/23/20
DATE:
REVISIONS:

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PRELIMINARY GRADING & DRAINAGE PLAN

MCQUEEN AND LOOP 202 MULTI-FAMILY
1855 S MCQUEEN RD., CHANDLER, AZ 85286

P 602 889 1984 | F 602 445 9482
8686 N CENTRAL AVE., SUITE 288
PHOENIX, AZ 85020
PHOENIX@LANDGROUP.COM
Land Development Group

PRELIMINARY NOT FOR CONSTRUCTION

1 OF 1

EXHIBIT S: PRELIMINARY GRADING & DRAINAGE PLAN

PRELIMINARY PLAT
"MCQUEEN AND LOOP 202 MULTI-FAMILY"
1855 S MCQUEEN RD., CHANDLER, AZ 85286

LOCATED IN A PORTION OF THE S 1/2 OF THE NW 1/4 OF THE SW 1/4 OF SECTION 2, T.2S, R.2E OF THE GILA & SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA

LEGEND

- SECTION CORNER
- 1/4 QUARTER
- BRASS CAP IN HANDHOLE
- BRASS CAP FLUSH
- FOUND REBAR OR AS NOTED
- CALCULATED POINT
- PROPERTY LINE
- EASEMENT LINE
- MONUMENT LINE
- x21.12 EXIST. SPOT ELEVATION
- C COMMUNICATIONS LINE
- T CATV, PHONE
- S SEWER LINE
- G GAS LINE
- W WATER LINE
- RW RECLAIMED WATER LINE
- OHE OVERHEAD ELECTRIC LINE
- FIRE HYDRANT
- SEWER MANHOLE
- WM WATER METER
- WATER VALVE
- FENCE
- 1396 EXISTING CONTOUR

FLOOD INSURANCE RATE MAP (FIRM) DATA

COMMUNITY #	PANEL #	SUFFIX	BASE FLOOD ELEVATION
040040	2737&2739 OF 4425	M	N/A
MAP #	PANEL DATE	FIRM INDEX DATE	ZONE
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LEGAL DESCRIPTION

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THENCE NORTH 404.5 FEET TO THE POINT OF BEGINNING;
THENCE EAST, 350.00 FEET;
THENCE NORTH 125.00 FEET;
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THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;
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NOTE: R/W DEDICATION PER DOC. 2018-0410566, MCR (NOT SHOWN ON DEED)

BASIS OF BEARINGS

SOUTH LINE OF THE SE 1/4 OF SEC. 2, T.1S, R.5E, BEARING N89°15'07"E PER CHANDLER AIRPORT CENTER PHASE 2, BOOK 658, PAGE 43, MCR.

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CITY OF CHANDLER BRASS CAP IN HAND HOLE AT THE INTERSECTION OF TUMBLEWEED PARK ROAD AND PIONEER PARKWAY, 1300' SOUTH OF GERMANN RD AND 700' WEST OF MCQUEEN RD, THE ELEVATION OF WHICH IF 1224.41, CITY OF CHANDLER DATUM, NAVD 88.

UTILITIES

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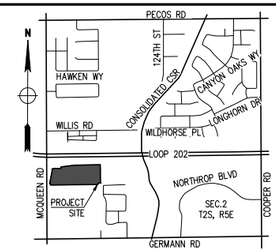
SANITARY SEWER: CITY OF CHANDLER
ELECTRIC: SRP
TELEPHONE: CENTURY LINK, COX COMMUNICATIONS
NATURAL GAS: SOUTHWEST GAS
CABLE TV: CENTURY LINK, COX COMMUNICATIONS



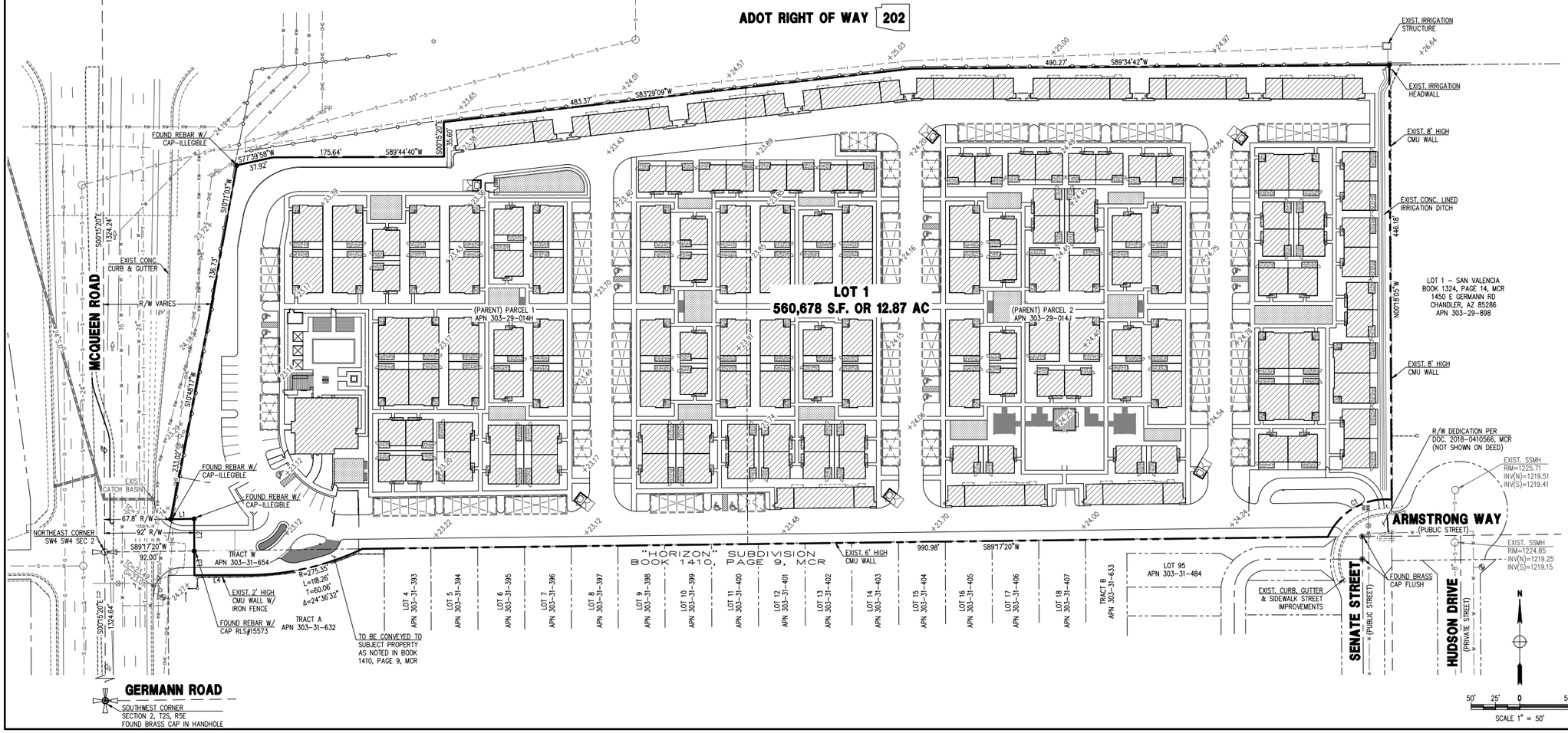
VICINITY MAP
NTS

OWNER

PUPPYFEATHERS LLLP
460 E AUTO CENTER DR.,
MESA, AZ 85204

SITE DATA

APN: 303-29-014H & 303-29-014J
ADDRESS: 1855 S MCQUEEN RD.,
CHANDLER, AZ 85286



REVISIONS:	DATE:	SCALE: 1"=50'	DATE: 10/23/20
		DESIGNED BY: NP	JOB: 1910241
		DRAWN BY: DW	VERSION: 1.1
		CHECKED BY: JF	PLOT DATE: 10/23/20

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PRELIMINARY PLAT

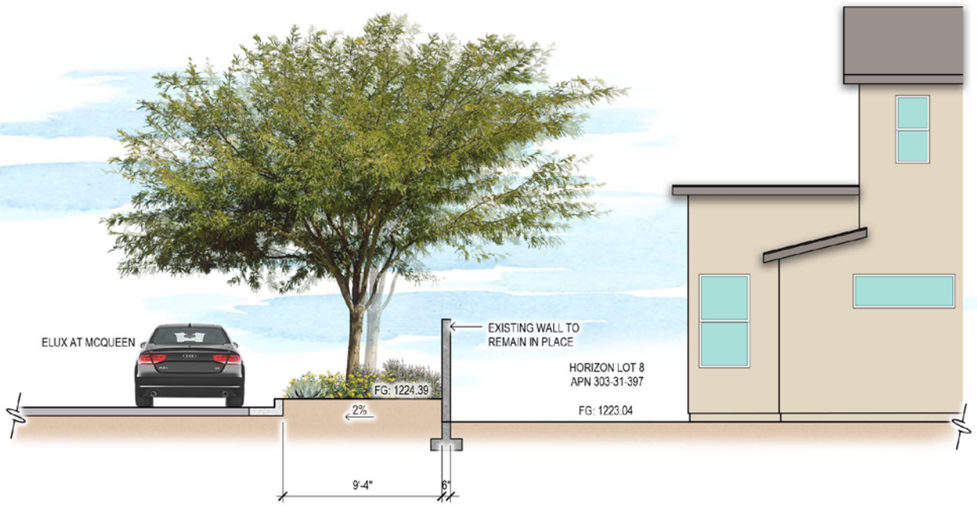
**MCQUEEN AND LOOP 202 MULTI-FAMILY
1855 S MCQUEEN RD,
CHANDLER, AZ 85286**

land DEVELOPMENT GROUP
P: 602.889.1864 | F: 602.445.9482
8800 E. CHAPARRAL RD., SUITE 288
PHOENIX, AZ 85250
PHOENIX@LDGENG.COM

REGISTERED LAND SURVEYOR CERTIFICATE NO. 35879 DRAFT Expires 9/30/21 ARIZONA, U.S.A.

1 OF 1

EXHIBIT T: PRELIMINARY PLAT



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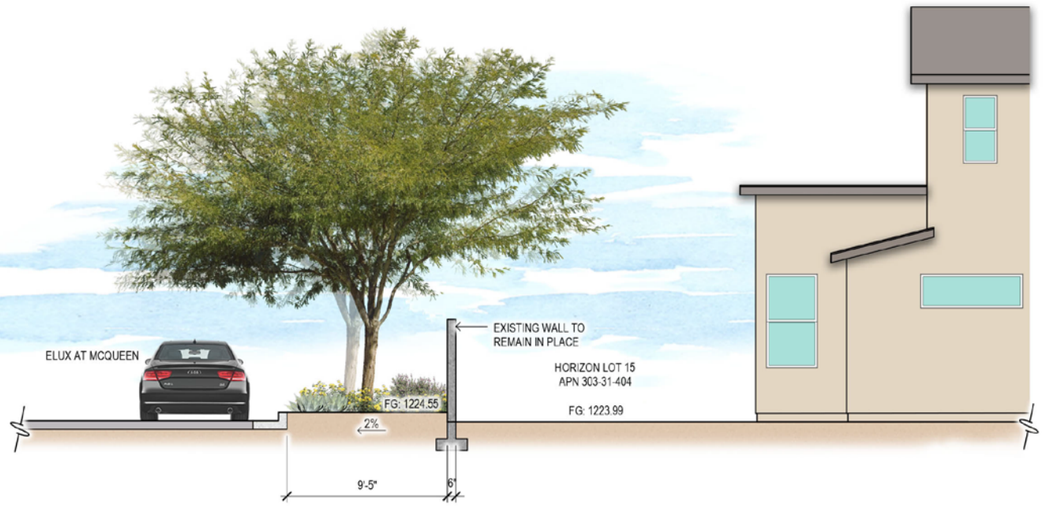

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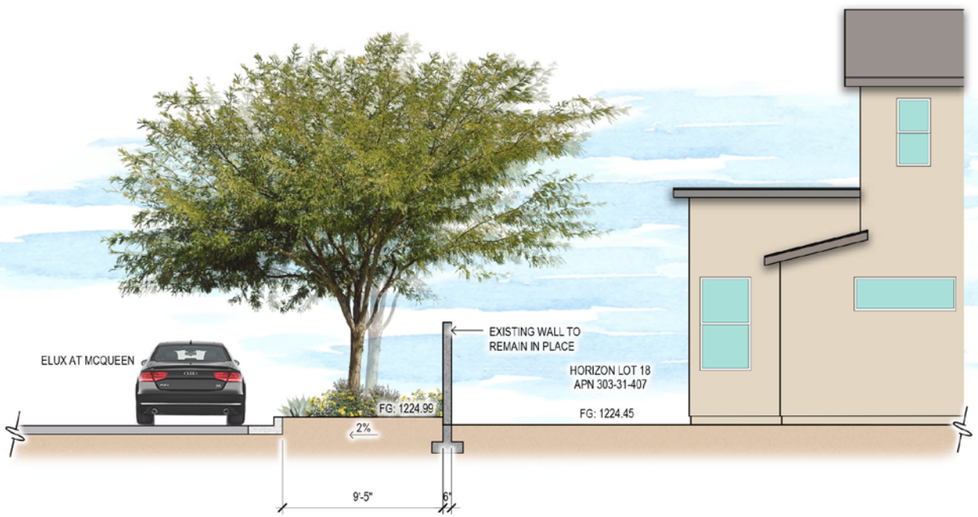

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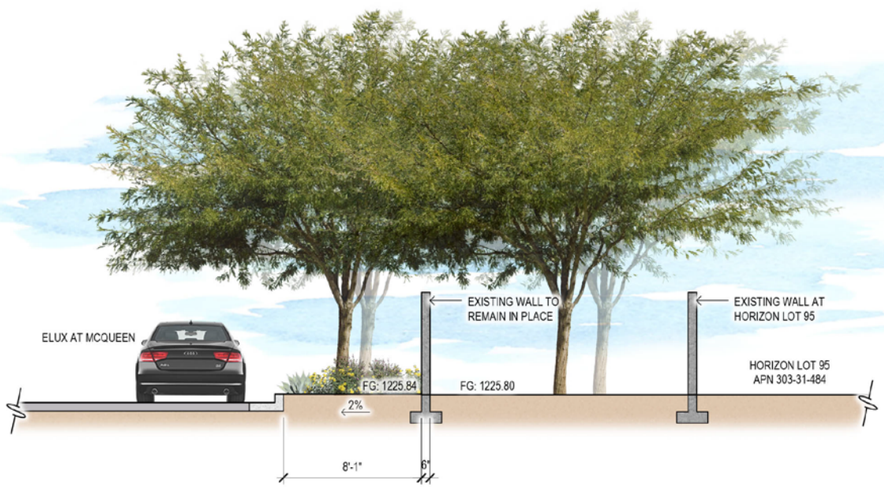

D Section
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*REFER TO DEVELOPMENT PLAN (EXHIBIT E) FOR SECTION LOCATIONS

CHANDLER arizona
Community of Innovation

City Council Memorandum **Management Services** **Memo No.** MS21-033

Date: February 25, 2021
To: Mayor and Council
Thru: Marsha Reed, City Manager
Dawn Lang, Management Services Director
From: Matthew Dunbar, Budget Manager
Subject: Resolution No. 5431 Amending the Citywide Fee Schedule relating to Airport, Community Services, Development Services, Cultural Development, Fire, and Neighborhood Resources Departments or Divisions

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Proposed Motion:

Move to pass and adopt Resolution No. 5431 amending the Citywide Fee Schedule relating to the Airport, Community Services, Development Services, Cultural Development, Fire, and Neighborhood Resources Departments or Divisions, with the Airport and Fire fee changes becoming effective March 1, 2021, and the remaining fees effective July 1, 2021.

Background:

Each year, departments review their fees to determine if any updates are necessary that require modifying, eliminating, or adding a new fee. Updates may be necessary to reflect an increased cost of a service provided, or a need to establish fees for new or enhanced services or facilities. All fees charged to citizens or businesses (except those exempted by City Code section 2-17) are reflected in the Citywide Fee Schedule and follow the requirements detailed in the City Code to establish or modify fees. While most fee changes are consolidated and submitted to Council as part of the annual budget process, there are occasions where fees need to be modified mid-year. During Fiscal Year (FY) 2020-21, fee changes were identified and reviewed as part of a mid-year analysis that will serve to update fees both for the existing fiscal year as well as changes needed for FY 2021-22.

Based on the requirements of Chandler City Code 2-17, all recommended new or modified fees have been summarized in The Summary of Proposed New or Modified Fees (Attachment 2). This was posted on the City's website on December 23, 2020, for 60 days (Attachment 3). Additionally, a Notice of Intention to Amend the Citywide Fee Schedule (Attachment 4) was published in the Arizona Republic on February 3, 2021 and February 10, 2021, as well as through social media on the same days, to inform the public of the proposed fee changes to be discussed at the February 25, 2021, City Council meeting as an action item, to allow for public comment.

Discussion:

The following proposed fee changes are brought forward by the City Manager Department, Airport Division, and reflect the fees related to the operations of the Airport, and the desire to regulate business activity:

- Change the fuel calculation: the retail price of aviation fuel shall be determined by a “cost-plus” formula based upon the wholesale price of the fuel inventory plus an amount not less than eighty ($0.80) cents per gallon, inclusive of applicable federal, state, and local fees and taxes.
- Add charges for exclusive use of staff time on activity not associated with normal airport operations and maintenance of the facility: (a) Regular Staff Charges During Posted Business Hours (actual time rounded up to nearest .25 hour, $45.00/hour) (b) Overtime/Call Out Staff Charges Outside of Posted Business Hours (2-hour minimum charge) (actual time rounded up to nearest .25 hour, $68.00/hour).
- Adds a Hangar Lock/Access Card/Device Replacement Fee (per each replacement) of $35.00 or actual cost of replacement, whichever is higher.
- Adds retention of the Hangar Deposit ($150) and staff hourly rates to any hangar not maintained per Section 16 of the Chandler Municipal Airport Aircraft Hangar Storage Agreement.
- Adds Aviation Use (Non-prime) Negotiable (negotiable base of $9.50/sq. ft/year minimum, plus consideration of appraisal and comps); Aviation Use (Prime) Negotiable (negotiable base of $22/sq. ft/year minimum, plus consideration of appraisal and comps). One-year terms.

The following fee change is recommended for the Fire Department, to offset the costs associated with offering the Paramedic Program to outside agencies:

- Add $6,000 per student per class fee - Offered to other agencies/municipalities.

The following fee changes are recommended for the Development Services Department, Planning Division to carve out Historic Preservation and reduce the cost associated with the normal zoning process:

- Adjust rezoning fee to $100 for Historic Preservation Neighborhood Application.
- Add $50 fee - per Resident/Home addition of Historic Preservation Overlay Application.

The following fee changes are recommended for the Cultural Development Department, Museum Division to allow for newly formed Museum foundation to set and manage these fees:

- Delete museum facility room rental fees, merchandise mark-up fee, and Chandler non-profit group fee.

The following fee changes are recommended for the Community Services Department, Recreation and Aquatic Division:

- Add Mini Field Preparations fees:
    - $21/prep - resident
    - $29/prep - non-resident
    - $32/prep - commercial
- Change Swim Team Lifeguard fee from $15 to $20 per hour per guard.
- Change general private party Lifeguard fee from $15 to $20 per hour per guard.
- Change $10 Pool Pass - Youth (20 punches) to Pool Pass - Youth (15 punches), 25% discount of the normal entry fee (currently equates to $11.25).
- Change $30 Pool Pass - Adult (20 punches) to Pool Pass - Adult (15 punches), 25% discount of the normal entry fee rounded to nearest 1/4 dollar (currently equates to $25.50).
- Change $15 Pool Pass - Youth (30 punches) to 50% discount of the normal entry fee rounded to nearest 1/4 dollar (would not change the current fee, only fee reference).
- Change $45 Pool Pass - Adult (30 punches) to 50% discount of the normal entry fee rounded to nearest 1/4 dollar (currently equates to $33.75).

The following fee changes are recommended for the Neighborhood Resources Department, Code Enforcement Division, due to new code language providing for a more efficient method of recouping costs:

- Delete $50 First non-compliance re- inspection fee.
- Delete $75 Subsequent re-inspection with continued non-compliance fee(s).
- Change Abatement Administrative Fee from $150 to 25% of contractor cost.
- Add Demolition Abatement Administrative Fee of 25% of demolition contractor cost.

In addition, technical corrections, which have no fee impacts, are being made to the Citywide Fee Schedule to clarify the fee description.

Financial Implications:

The amendments to the Citywide Fee Schedule are estimated to generate approximately $48,400 within the General Fund and $42,000 for the Airport Operating Fund.

Attachments

Attachment 1 - Resolution No. 5431

Exhibit A - Citywide Fee Schedule (additions in ALL CAPS, deletions in strikeout)

Attachment 2 - Summary of Proposed or Modified Fees

Attachment 3 - Web Posting

Attachment 4 - Notice of Intent

RESOLUTION NO. 5431

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CHANDLER, ARIZONA AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO THE AIRPORT, COMMUNITY SERVICES, DEVELOPMENT SERVICES, CULTURAL DEVELOPMENT, FIRE AND NEIGHBORHOOD RESOURCES DEPARTMENTS OR DIVISIONS.

WHEREAS, the Citywide Fee Schedule was originally adopted by Resolution No. 3175 on December 16, 1999, pursuant to the requirements of the City Code; and

WHEREAS, the Citywide Fee Schedule has been amended on occasion to update fees that no longer accurately reflect the cost to provide the services listed, or to establish fees for new or enhanced services or facilities; and

WHEREAS, the new fees and technical corrections identified in Exhibit A shall become effective March 1, 2021 for the fees associated with the Airport division and Fire department, and July 1, 2021 for the remaining fees;

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of Chandler, Arizona, that the Citywide Fee Schedule and each of the fees listed therein is hereby approved and amended as set forth in Exhibit A of this Resolution attached hereto and incorporated herein.

PASSED AND ADOPTED by the Mayor and City Council of the City of Chandler, Arizona, this 25th day of February, 2021.

ATTEST:

_____ _____

CITY CLERK MAYOR

CERTIFICATION

I HEREBY CERTIFY that the above and foregoing Resolution No. 5431 was duly passed and adopted by the City Council of the City of Chandler, Arizona, at a regular meeting held on the 25th day of February, 2021, and that a quorum was present thereat.

_____

CITY CLERK

APPROVED AS TO FORM:

_____

CITY ATTORNEY

City of Chandler
Fee Schedule
Effective – ~~January 1, 2020~~MARCH 1, 2021 (AIRPORT & FIRE) AND JULY 1, 2021 (REMAINING)

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Sec. 1 Administration and Management Services

Administration:

1.1 Administrative Fee (Res.4703)

(a) Standard Fees (unless otherwise listed)
- i. Appeal fee [§1-7.1] (Res. 3175) $200.00
- ii. CD / Audio $10.00
- iii. Copy – per page $0.15
- iv. DVD / Video $15.00
- v. Microfilm Copy – per page $2.00
- vi. DISHONORED OR Non-Sufficient Fund (NSF) Check fee $25.00

(b) Fire Department
- i. Digital Photos of event – each print $1.00
- ii. Digital Photos of event – CD $5.00
- iii. Audio or DVD of event – each $10.00
- iv. Fire, EMS & Incident and Occupancy Inspection Report copy – each $5.00
- v. Environmental Report Review – written $25.00
- vi. Permit – duplicate $5.00

(c) Police Department
- i. Audio Recording Copies – per report $10.00
- ii. Digital Photographs – per report $5.00
- iii. Photo Red Light Copies – 4 sheets $10.00
- iv. Report Copies – first 35 pages $5.00
  (each additional page City standard rate applies)
- v. Video Recording Copies – per report $25.00
- vi. Block Watch Signs – per sign $25.00

(d) Reports, Plans, Manuals, Guides, etc.
- i. Airpark Area Plan $4.00
- ii. Airpark Map $1.00
- iii. Airport Master Plan Update $45.00
- iv. Airport Master Plan Update Executive Summary $2.00
- v. Airport Master Plan – color $75.00
- vi. Airport F.A.R. Noise Study with Maps $68.00
- vii. Crime Free Multi-Housing Program $6.00
- viii. Code Enforcement Report Copies – first 50 pages $5.00
  (each additional page City standard rate applies)
- ix. Drainage Policies & Standards, #3 Technical Design Manual $2.00
- x. General Plan $5.00
- xi. Industrial Pretreatment – Annual Report $25.00
- xii. Landscape & Irrigation Guidelines, #8 Technical Design Manual $2.00
- xiii. Park and Recreation Master Plan $6.00
- xiv. Redevelopment Element $7.00
- xv. Residential Development Standards $8.00
- xvi. Southeast Chandler Area Plan and Appendices $10.00
- xvii. Southeast Chandler Area Plan Appendices $7.00
- xviii. Street Design & Access Control, #4 Technical Design Manual $2.00
- xix. Streetlight Standards, #7 Technical Design Manual $2.00
- xx. Subdivision Code $2.00
- xxi. Traffic Barricade, #7 Technical Design Manual $2.00
- xxii. Traffic Signal Design, #5 Technical Design Manual $2.00
- xxiii. Water & Wastewater System, #1 & 2 Technical Design Manual $2.00

Management Services – Tax and License:

1.2 Off-Track Wagering [§58-2.2] (Res. 4703)

(a) Application fee (nonrefundable) [§58-2.2.A] $200.00

(b) Annual License fee
- i. Up to four pari-mutuel betting windows or tote machine [§58-2.2.B.1] $1,200.00
- ii. For each pari-mutuel betting windows or tote machine in excess of four

[§58-2.2.B.2] $400.00
(c) Renewal Application Late Filing fee [§58-2.5.A] $100.00

1.3 Auctioneers, Pawnbrokers, and Other Secondhand Permits [Ch. 15] (Res. 3175)
(a) Application fee (nonrefundable) [§15-12] $50.00
(b) Auctioneer, Auction House, annual permit fee [§15-12] $100.00
(c) Pawnbroker, annual permit fee [§15-12] $300.00
(d) Secondhand/Antique, annual permit fee [§15-12] $100.00
(e) Junk Dealer, annual permit fee [§15-12] $200.00
(f) Automatic Electronic Device Kiosks, annual permit fee [§15-12] $500.00
(g) Change of Location fee [§15-12.E] (Res. 4703) $50.00
(h) Fingerprinting fee [§15-12.E] (Res. 3482) ..... Amount Charged by DPS
(i) Late Renewal fee [§15-12.E] ..... 10% of Annual Permit Fee

1.4 Bingo [Arizona Department of Revenue] (Res. 4703)
(a) Class A - Licensing, one-time fee $5.00
(b) Class B and C - Licensing, one-time fee $25.00

1.5 Escort and/or Introductory Service Permit [Ch. 19] (Res. 3175, Res. 4035)
(a) Application fee (nonrefundable) [§19-3.4] $100.00
(b) Annual Permit fee [§19-3.4] $500.00
(c) Renewal Application fee [§19-3.4] (Res. 3482) $50.00
(d) Change of Location fee [§19-4.1] $50.00
(e) Fingerprinting fee [§19-3.4.O] (Res. 4703) ..... Amount Charged by DPS

1.6 Extension of Premises [Ch. 60.6] (Res. 4703)
(a) Permanent Extension of Premises
i. Application fee (nonrefundable) $100.00
(b) Temporary Extension of Premises
i. Application fee (nonrefundable), per day $25.00
ii. Additional application fee, if submitted less than 21 days prior to city council meeting $25.00

1.7 Lien Fee [Ch. 62-590] (Res. 4703) $50.00

1.8 Liquor License (Application fee / Issuance fee / Annual fee) [Ch. 60.4] (Res. 4703)
(a) Series 1, In-State Producer ..... $200.00 / $200.00 / $1,000.00
(b) Series 2, Out-of-State Producer ..... $200.00 / $0.00 / $0.00
(c) Series 3, Microbrewery ..... $200.00 / $200.00 / $1,000.00
(d) Series 4, Wholesale ..... $200.00 / $0.00 / $0.00
(e) Series 5, Government ..... $200.00 / $0.00 / $0.00
(f) Series 6, Bar (all spirituous liquor) ..... $200.00 / $200.00 / $1,000.00
(g) Series 7, Beer and Wine Bar ..... $200.00 / $200.00 / $550.00
(h) Series 8, Conveyance ..... $200.00 / $200.00 / $400.00
(i) Series 9, Liquor Store (all spirituous liquor) ..... $200.00 / $200.00 / $500.00
(j) Series 10, Beer and Wine Store ..... $200.00 / $200.00 / $350.00
(k) Series 11, Hotel-Motel (with restaurant) ..... $200.00 / $200.00 / $1,000.00
(l) Series 12, Restaurant ..... $200.00 / $200.00 / $1,000.00
(m) Series 13, Domestic Farm Winery ..... $200.00 / $200.00 / $1,000.00
(n) Series 14, Club (private) ..... $200.00 / $200.00 / $300.00
(o) Series 18D, Liquor Distilleries ..... $200.00 / $200.00 / $1,000.00
(p) Series 19D, Liquor Tasting Rooms (Spirits) ..... $200.00 / $200.00 / $300.00
(q) Series 19W, Liquor Tasting Rooms (Wine) ..... $200.00 / $200.00/ $300.00
(r) Series 20, Farm Winery Producer ..... $200.00 / $200.00 / $300.00
(s) Series 21, Wine Producer Custom Crush ..... $200.00 / $200.00 / $300.00

1.9 Liquor License, duplicate of City license (Res. 4703) $10.00

1.10 Massage Establishments [Ch. 17] (Res. 4035)

(a) Permit Application fee (nonrefundable) [§17-3.2]	$50.00
(b) Annual Permit fee [§17-3.2]	$100.00
(c) Change of Location fee [§17-9.A] (Res. 4703)	$50.00
(d) Fingerprinting fee [§17-3.3] (Res. 4703)	Amount Charged by DPS
(e) Late fee [§17-10.C]	10% of Annual Permit Fee

1.11 Peddlers, Canvassers, Transient Merchants and Solicitors [Ch. 20]

(a) Permit Application Investigation fee (nonrefundable) [§20-5]	$50.00
(b) Individual or Employee, annual permit fee [§20-10]	$50.00
(c) Business (Corporation or Firm), annual permit fee [§20-10.2]	$100.00
(d) Surety Bond or Cash Deposit [§20-14] (Res. 4703)	$1,000.00
(e) Fingerprinting fee [§20-5] (Res. 4703)	$10.00
(f) Late fee [§20-10.3]	10% of Annual Permit Fee
(g) Non-Profit Solicitor [§20-8] (Res. 4703)	$0.00

1.12 Sexually Oriented Business [Ch.18] (Res. 4035)

(a) Permit Application fee (nonrefundable) [§18-5.1]	$100.00
(b) Establishment, annual permit fee [§18-5.1 & §18-6.1]	$500.00
(c) Business Manager, annual permit fee [§18-5.1 & §18-7.2]	$100.00
(d) Adult Service Provider, annual permit fee [§18-5.1 & §18-8.2]	$100.00
(e) Duplicate Permit Copy fee [§18-20]	$10.00
(f) Fingerprinting fee [§18-4.1A]	Amount Charged by DPS
(g) Late Fee [§18-19.1]	10% of Annual Permit Fee

1.13 Special Event Liquor and Wine Festivals (Series 15, TSPE, Series 16D or Series 16W) [Ch. 60.5] (Res. 4703)

(a) License fee, per day	$25.00
(b) Additional application fee, if submitted less than 21 days prior to city council meeting	$25.00

1.14 Transaction Privilege Tax License [Ch. 62] (Res. 5098)

(a) Annual License fee [§62-320]	$2.00
(b) Residential Rental (per unit/max = $50.00) [§62-320]	$2.00
(c) Late fee [§62-320]	50% of Annual License Fee

1.15 Transaction Privilege Tax (City Tax Rates) [Ch. 62] (Res. 4703)

(a) Advertising [§62-405]	1.50%
(b) Amusements, Exhibitions, and Similar Activities [§62-410]	1.50%
(c) Construction Contracting: Prime Contractors [§62-415]	1.50%
(d) Construction Contracting: Speculative Builders [§62-416]	1.50%
(e) Construction Contracting: Owner-Builders [§62-417]	1.50%
(f) Hotels (>29 days) [§62-444]	1.50%
(g) Jet Fuel Sales / Jet Fuel Use: Per Gallon [§62-422]	$0.023
(h) Job Printing [§62-425]	1.50%
(i) Manufactured Buildings [§62-427]	1.50%
(j) Mining [§62-432]	0.10%
(k) Publishing and Periodicals Distribution [§62-435]	1.50%
(l) Real Property Rental (Residential) [§62-445]	1.50%
(m) Real Property Rental (Commercial) [§62-445]	1.50%
(n) Restaurants & Bars [§62-455]	1.80%
(o) Retail Sales [§62-460]	1.50%
(p) Retail Sales: Food for Home Consumption [§62-462]	1.50%
(q) Tangible Property Rental [§62-450]	1.50%
(r) Telecommunication Services [§62-470]	2.75%
(s) Timbering and other Extraction [§62-430]	1.50%

(t) Transient Lodging (<30 days) [§62-447] 4.40%
(u) Transporting for Hire [§62-475] 1.50%
(v) Use Tax [§62-610] 1.50%
(w) Utility Services [§62-480] 2.75%
(x) Wastewater Removal Services [§62-485] 0.00%

1.16 Business Registration (Res. 5098)

(a) Annual Registration Fee [§61-6.A] $45.00
(b) Non-Profit, Annual Registration Fee [§61-6.B] $0.00
(c) Specialty License Holder, Annual Registration Fee [§61-6.D] $0.00
(d) Late Penalty [§61-5.A] ..... 50% of Annual License Fee
(e) Change of Location Fee, (if not completed online) [§61-7.C] $15.00

1.17 Shared Mobility (Pilot Program (Res. 5337)

(a) License Application One-time Fee (non-refundable) $3,000
(b) Monthly Use Fee (paid monthly) ..... $0.10 per ride
(c) Late Monthly Use Fee $50.00
(d) Violation Fee
    i. 1st violation $50.00
    ii. 2nd violation $250.00
    iii. 3rd and subsequent violations $500.00

Sec. 2 Chandler Municipal Airport, (Chapter 8): (Amd entirety by Res. 4505)

2.1 Ground Leases:
- (a) Aviation Use, (Non-prime) ..... Negotiable
  (Negotiable based on minimum $0.25/Sq Ft/Yr, plus consideration of appraisal and comps)
- (b) Aviation Use, (Prime) ..... Negotiable
  (Negotiable based on minimum $0.30/Sq Ft/Yr, plus consideration of appraisal and comps)
- (c) Non-Aviation Use, all areas (Res. 4703) ..... One and one-half times the aviation use rate

2.2 ~~Hangers~~HANGARS:
- (a) T-Hangar Units (Res. 4703)
  - i. Small unit, monthly fee $244.00
  - ii. Small unit with storage, monthly fee $288.00
  - iii. Large unit, monthly fee $430.00
  - iv. Large unit with storage, monthly fee $551.00
- (b) Storage Units (Res. 4703)
  - i. Small unit, monthly fee $44.00
  - ii. Large unit, monthly fee $121.00
- (c) OTHER HANGARS
  - i. DAILY FEE ..... $0.10/SQ. FT
  - ii. MONTHLY FEE ..... $0.33/SQ. FT
  - iii. ANNUAL FEE ..... $4/SQ. FT
- (d) CLEANING FEE
  - i. RETENTION OF DEPOSIT $150.00
  - ii. STAFF CHARGES ..... AS ASSESSED IN SEC. 2.10

2.3 T-Shades, all units (qty 12), monthly fee $130.00

2.4 Tie Down Spaces (Res. 4703)
- (a) Single Engine PISTON AIRCRAFT & Helicopter, less than 2,500 lbs MTOW, monthly fee $50.00
- (b) Multi-Engine PISTON AIRCRAFT & Helicopter, 2,500 to ~~7,000~~5,000 lbs MTOW, monthly fee $68.00
- (c) Turbine Engine OVER 5,000 LBS. MTOW & Helicopter, over ~~7,000~~2,500 lbs MTOW, monthly fee $138.00

2.5 Transient or Overnight Parking Fee
- (a) Single Engine & Helicopter, less than 2,500 lbs $10.00
- (b) Multi-Engine & Helicopter, 2,500 to ~~7,000~~5,000 lbs MTOW $12.00
- (c) Turbine Engine & Helicopter, over ~~7,000~~5,000 lbs MTOW (Res. 4703) $26.00

2.6 Aeronautical Business Permit Fee [Ch.8-6.1]
All commercial operators on the Chandler Municipal Airport (CHD) shall pay one of the following fees according to their primary business activity in relation to the fee categories described below and/or as defined in the Chandler Municipal Airport Rules and Regulations.
- (a) FBO Operator (Assessed to a ground lessee)
  Annual fee per on-airport business entity $1,500.00
- (b) SASO Operator (Assessed to a ground lessee)
  Annual fee per on-airport business entity $860.00
- (c) Hangar/Shade/Tie Down Leasing of units of size less than or equal to 2,100 SF each.
  (Assessed to any entity leasing or subleasing aircraft storage units regardless of aircraft hangar ownership)
  Annual fee per unit leased* $50.00
- (d) Hangar/Shade/Tie Down Leasing of units of size in excess of 2,100 SF each.
  (Assessed to any entity leasing or subleasing aircraft storage units regardless of aircraft hangar ownership)
  Annual fee per unit leased* $125.00
- (e) Aircraft Charter and Air Taxi *(Assessed to companies that have aircraft based at and operating from Chandler Municipal Airport. All pertinent SASO requirements will apply*

except on-airport facility requirements)
Annual fee per business entity operating on the airport $450.00

(f) Mobile aircraft maintenance and repair *(Assessed to aircraft maintenance and repair operations that do not meet the applicable SASO conditions for on-airport facilities or are not conducting said operations as a bona-fide employee – not a temporary contractor - on the aircraft owned by a ground lessee or sublessee. All pertinent SASO requirements will apply except the on-airport facility requirements)*
Annual fee per business entity operating on the airport $1,000.00

(g) Temporary Aeronautical Business Permit – 7 day permit *(Assessed to commercial activity on the airport that is not a ground lessee or sublessee on the airport. All pertinent SASO requirements will apply except on-airport facility requirements)*
Charged per 7-day (7 continuous days) permit $80.00

(h) Temporary Aeronautical Business Permit – 1 day permit *(Assessed to commercial activity on the airport that is not a Ground Lessee or sublessee on the airport. All pertinent SASO requirements will apply except on-airport facility requirements)*
Charged per 1-day permit..... $25.00

(i) Commercial Sub-lease Tenant *(Includes sublessees that are SASOs and other commercial activities – does not apply to hangar sub-leasing. All pertinent SASO requirements will apply)**
Annual fee per sublessee business entity operating on the airport.....$450.00

(j) Commercial Users Permit* *(Assessed to commercial activity on the airport that is not a ground lessee or sublessee on the airport. All pertinent SASO requirements will apply except on-airport facility requirements)*
Annual fee per business entity operating on the airport $350.00

(k) Banner Tow Operations *(Applies to commercial Banner Tow Operators. Requires additional appropriate permit [i.e. Temporary Business Permit, SASO Operator or Commercial Users Permit])*
Charged per each time a banner is picked up on the airport. $20.00

* - Non aviation uses in these categories shall pay three times the aviation use rate.

2.7 Aeronautical Business Permit monthly fee [Ch.8-6.5]

(a) For fuel supply businesses:
Fuel flowage fee, per gallon:
i. All gallons per month $0.10

(b) For self-fueling operations
Fuel flowage fee, per gallon:
i. All gallons per month $0.15

(c) For other businesses ..... Not Applicable

2.8 Through-the-Fence Access Fees

(a) Annual Access Privilege/Operations & Maintenance Fee (Amd by Res. 4505)
Payments for this charge are made on a quarterly basis and are due by the tenth of January, April, July and October of each calendar year. Payments, administration and contact with Airport Management on Through-the-Fence issues shall be as follows:

- If the through-the-fence area is a property with a single through-the-fence user, a single point-of-contact for that single property owner is responsible for payment, administration and contact with Airport Management.
- If the through-the-fence area is a property with multiple through-the-fence users on that site, then an association formed by those owners is the responsible party for payment and contact with Airport Management.

If payments are more than 30 days past due, all gate access for that property will be denied until payment is received by the City of Chandler.

i. Owner-Occupied Hangar ..... $0.630/SF of Hangar
   a. This component is based on the operations and maintenance costs of airport common use area for based aircraft.
   b. The actual annual charge will be based upon the actual square footage of any hangars in the through-the-fence area with taxilane access and which are designed for, or capable of

aircraft storage. "Actual hangar area" is established by the plans approved by the City. It is the hangar owner's responsibility to provide Airport Management with a copy of the approved plans or plan sheet showing the approved square footage of the hangar.

c. An owner occupied hangar is one that is owned or controlled by the property owner. Conditions for meeting this criteria include:
   (i) The hangar is owned by and its use is controlled exclusively by the applicant. This ownership can be through either:
      - Fee simple ownership; or
      - A long-term lease for the hangar property with a lease term of 10+ years. In this arrangement, the actual annual charge will be equal to the Owner occupied hangar fee described in paragraph 2.8(a).i.a. and b. of this section. However, the annual charge will change to the Non-owner occupied hangar fee described in paragraphs 2.8(a).ii.a. and b. of this section, if any one of the following conditions occur: (a) the long-term hangar lease is terminated prior to the expiration of a 24-month period; or (b) if a new lease entity assumes the long-term lease and the new entity can't provide a viable connection to the prior long-term lessee (i.e., business acquisition, merger, etc.). The Non-owner occupied fee will be in effect for that hangar for any further leasing activity while the then current property owner retains ownership of the hangar. If the long-term hangar lease is terminated before 24 months and the hangar owner provides evidence that only their owned and controlled aircraft will be stored in the hangar, the rate will remain at the Owner occupied hangar fee described in paragraphs 2.8(a).i.a. and b. of this section and will remain at this rate until another change in occupancy status occurs.
   (ii) The aircraft is owned or otherwise controlled by the property owner for which evidence can be provided including:
      - Evidence of clear ownership of the aircraft showing the property owner as aircraft owner. This can be through FAA aircraft registration or other official documentation regarding the ownership or registration of an aircraft.
      - Proof of at least 25% ownership and equal control of the aircraft which shall be affirmed through signature of all owners on the required aircraft control entity form, which shall be provided by Airport Management. In the event of arrangements for an aircraft in which there are multiple owners or partners, a copy of the agreement must be presented to Airport Management. These arrangements for aircraft management, aircraft leasing, interchange agreements, joint ownership agreements or time-sharing agreements must substantially reflect the general guidelines and tenets for the appropriate arrangement as detailed in the National Business Aircraft Association's (NBAA) document titled 2001 NBAA Aircraft Operating & Leasing Package. The agreements, regardless of aircraft size, must also include the general verbiage requirements detailed in Section (a)(1) and (a)(2) of the Federal Aviation Regulations (FAR) Part 91.23 – Truth in Leasing.

d. Property owners shall notify Airport Management in writing prior to a hangar being used to store an aircraft. The "Annual Access Privilege/Operations & Maintenance Fee - Owner Occupied Hangar" fee will be applied for the period beginning with the first day of the month following receipt of the written notice. This fee shall apply for any part of a month in which an aircraft is stored in the hangar and shall continue until the property owner provides evidence that the aircraft or hangar is no longer owned by the property owner.

ii. Non-Owner Occupied Hangar.....$0.950/SF of Hangar

a. This component is for any off airport hangar property that is occupied by an aircraft not owned or controlled by the property owner. This condition applies to any situation where an aircraft is in a hangar through a lease or other type of agreement. It also applies to situations in which an aircraft is stored in the hangar that is owned by the property owner

AND an aircraft is stored the hangar that is not owned by the property owner. The annual charge is based upon the Owner Occupied Hangar rate described in paragraphs 2.8(a).i.a. and b. plus 50% of that rate.

b. The actual annual charge will be based upon the actual square footage of any hangars in the through-the-fence area with taxilane access and which are designed for, or capable of aircraft storage. "Actual hangar area" is established by the plans approved by the City. It is the hangar owner's responsibility to provide Airport Management with a copy of the approved plans or plan sheet showing the approved square footage of the hangar.

c. Upon written notification by property owner and aircraft owner to Airport Management, advising a hangar will be occupied by an aircraft controlled by any entity other than the property owner, the "Annual Access Privilege/Operations & Maintenance Fee - Non-owner Occupied" annual charge will become effective in the following manner:
   (i) If the hangar was previously registered as being occupied with an aircraft controlled by the property owner, the Non-owner rate and registration begins with the first day of the following calendar month; or
   (ii) If the hangar was previously registered as having no aircraft being stored (reference paragraph 2.8(a).i.c.), the Non-owner rate and registration begins with the first day of the following calendar month; or
   (iii) If the hangar was previously registered as having a non-owner aircraft, the Non-owner rate will remain in effect and uninterrupted.

The non-owner rate applicable to any of these conditions will continue for 6-months and will expire on the last day of the 6th month of that term regardless of any changes in the aircraft owner status during that 6-month period. The hangar status shall be automatically registered for another 6-month period as a "Non-owner occupied" hangar –unless- the property owner provides written evidence changing the status of the hangar at least 14 calendar days prior to the current expiration date. Notice changing the status of the hangar is the full responsibility of the property owner.

(b) Annual User Fee
   i. Turbine Engine Aircraft & Helicopters having a gross take-off weight greater than 7,000 pounds - per aircraft based in Airpark $800.00
   ii. Multi-Engine Aircraft & Helicopters having a gross take-off weight greater than 2,500 pounds but less or equal to 7,000 pounds – per aircraft based in Airpark $390.00
   iii. Single-Engine Aircraft & Helicopters having a gross take-off weight that is less or equal to 2,500 pounds - per aircraft based in Airpark $290.00

(c) Annual Taxiway User Fee - per square foot fee for the total area reserved for Airport access use by licensee's members..... $0.245

(d) Fuel Flowage Fee - All Aircraft (total gallons fee based on gallons/month)
All gallons per month .....$0.15 Per Gallon

(e) Fees Adjustments
The Annual Access Privilege/Operations & Maintenance Fee shall be adjusted annually, without further City Council action, on January 1st of each year subsequent to adoption of this Resolution No. 4505 by an amount equal to the percentage increase, if any, in the Consumer Price Index (CPI-U, Western Region - All items) over the previous 12-month period ending the calendar month prior to the adjustment date; except that, at the fourth adjustment date, and every fourth adjustment date thereafter, the rate shall only be adjusted (increased or decreased) upon action of City Council taken upon completion of a review of the appropriateness of the rate structure. In no event shall the rate be increased more than ten (10%) per cent over any twelve (12) month period between anniversary dates, unless otherwise approved by City Council. Should the annual change in the CPI-U indicate a decline, the fee shall not diminish.

2.9 City Owned, Aviation Fuel Service, Retail Prices

The retail price of aviation fuel shall be per methodology contained below:

~~(a) The Minimum Retail Fuel Price is determined by: dividing the annual cost of providing self-serve~~

~~fueling services by the number of gallons sold for a base cost. A contingency reserve factor equal to the current Retail Fuel Flowage Fee per gallon is added to the base cost. This amount is added to a) the sum of the wholesale cost of the fuel (including all related fees), b) the sum of the federal and state fuel excise taxes and c) county/local privilege taxes.~~

~~(b) The Maximum Retail Fuel Price is determined by obtaining the current advertised aviation self-serve fuel prices for the Phoenix metropolitan area. The second highest fuel price is determined from all currently advertised fuel prices and $0.05 is added.~~

~~(c) The Final Fuel Price shall be reflective of an amount that is competitive with the other self-serve~~

(a) ~~fuel vendors in the local market. The pump price will be set with the highest price being the Maximum Retail Fuel Price, but in no case will it be less than the Minimum Retail Fuel Price. These calculations shall be performed each time a fuel delivery is accepted by the airport personnel or on a more frequent basis if it is determined by the Public Works Director or his/her designee that the area fuel market prices have shifted significantly requiring adjustment for the fuel prices to remain competitive.~~

(a) THE RETAIL PRICE OF AVIATION FUEL SHALL BE DETERMINED BY A "COST-PLUS" FORMULA BASED UPON THE WHOLESALE PRICE OF THE FUEL INVENTORY PLUS AN AMOUNT NOT LESS THAN EIGHTY ($0.80) CENTS PER GALLON, INCLUSIVE OF APPLICABLE FEDERAL, STATE, AND LOCAL FEES AND TAXES.

2.10 Airport Hourly Fee

For exclusive use of staff time on activity not associated with normal airport operations and maintenance of the facility.

(a) Regular Staff Charges DURING POSTED BUSINESS HOURS
~~Actual time rounded up to nearest .25 hour (Res. 4703)~~ACTUAL TIME ROUNDED UP TO NEAREST .25 HOUR.....~~$42.00~~$45.00/hr

(b) Overtime/Call Out Staff Charges OUTSIDE OF POSTED BUSINESS HOURS (2-HOUR MINIMUM CHARGE)
~~Actual time rounded up to nearest .25 hour (Res. 4703)~~ACTUAL TIME ROUNDED UP TO NEAREST .25 HOUR.....~~$64.00~~$68.00/hr

2.11 Security Fee

Payments of these fees will be on an individual basis and as conditions warrant.

(a) Security Card and System Fee – for each lessee/sublessee transfer.....$100.00
(b) Hangar Key/Access Card/Device Replacement Fee (per each replacement OR ACTUAL COST OF REPLACEMENT, WHICHEVER IS HIGHER)..... $35.00
(c) Access System Violation (Pertains to misuse of access cards/devices and access of gates in violation of access agreement(s) and airport policies during a contiguous 24-month period. Upon notice of any violation, should no previous violations have occurred for the individual card holder of record within the previous rolling 24-month period, the violation is considered a 1st violation)

1st Violation	$0.00 Written warning to be issued
2nd Violation	$100.00 Written notification to be issued
3rd Violation	$200.00 90-day loss of access privileges (Res. 4703)
4th Violation	$200.00 12-month loss of access privileges

2.12 Terminal Administration Conference Room (Assessed to non-aviation related uses) (Res. 4703)

(a) Resident Hourly Use Fee..... $25.00
(b) Non-Resident Hourly Use Fee $34.00

2.13 OFFICE LEASES (ONE-YEAR TERM)

(a) AVIATION USE (NON-PRIME) NEGOTIABLE (NEGOTIABLE BASE OF $9.50/SQ. FT/YR. MINIMUM, PLUS CONSIDERATION OF APPRAISAL AND COMPS)

(b) AVIATION USE (PRIME) NEGOTIABLE (NEGOTIABLE BASE OF $22/SQ. FT/YR. MINIMUM, PLUS CONSIDERATION OF APPRAISAL AND COMPS

Sec. 3 Community Services – Parks, Recreation, and Museum: (Res. 4703)

3.1 Recreation Program and Service Fees: [Ch.§31-21.A]
The following includes all fees charged for the use of department facilities or the issuance of permits or licenses. In conjunction with the fees set forth, any applicable rental or retail sales tax will also be assessed as appropriate for items such as, pool rentals, room rentals, ball fields, pavilions, merchandise, lifeguard rentals, permits, etc.

3.1.1 Aquatics

Pool Admission Fees	Resident	Per	Non-Resident	Per
(a) Pool Admission Fee - Youth	$1.00	pp	$1.00	pp
(b) Pool Admission Fee - Adult	$2.25	pp	$2.25	pp
(c) Pool Admission Fee - Senior	$1.25	pp	$1.25	pp
(d) Lap Swim - Year Round	$2.00	pp	$2.00	pp
~~(e) Pool Pass - Youth (5 punches)~~	~~$2.50~~	~~ea~~	~~N/A~~	~~N/A~~
~~(f) Pool Pass - Adult (5 punches)~~	~~$7.50~~	~~ea~~	~~N/A~~	~~N/A~~
(e) Pool Pass - Youth (~~20~~ 15 punches)	~~$10.00~~	~~ea~~	~~N/A~~	~~N/A~~
	25% DISCOUNT OFF CURRENT ADMISSION ROUNDED TO NEAREST ¼ DOLLAR			
(f) Pool Pass - Adult (~~20~~ 15 punches)	~~$30.00~~	~~ea~~	~~N/A~~	~~N/A~~
	25% DISCOUNT OFF CURRENT ADMISSION ROUNDED TO NEAREST ¼ DOLLAR			
(g) Pool Pass - Youth (30 punches)	~~$15.00~~	~~ea~~	~~N/A~~	~~N/A~~
	50% DISCOUNT OFF CURRENT ADMISSION ROUNDED TO NEAREST ¼ DOLLAR			
(h) Pool Pass - Adult (30 punches)	~~$45.00~~	~~ea~~	~~N/A~~	~~N/A~~
	50% DISCOUNT OFF CURRENT ADMISSION ROUNDED TO NEAREST ¼ DOLLAR			
(i) Annual Pool Pass - Family of 4	$112.00	ea	N/A	N/A
(j) Annual Pool Pass - Additional Family Member	$15.00	pp	N/A	N/A
(k) Annual Lap Swim - Adult Pass	$200.00	ea	N/A	N/A
(l) Family Swim	$1.00	family	$1.00	family

Pool Rentals	Resident	Per	Non-Resident	Per
(m) Private Pool Rental (plus Guard fee)	$45.00	hr	$61.00	hr
(n) Swim Team Use (per Guard)	~~$15.00~~$20.00	hr	N/A	N/A
(o) Lifeguard	~~$15.00~~$20.00	hr	~~$15.00~~$20.00	hr

Miscellaneous Fees	Resident	Per	Non-Resident	Per
(p) Red Cross Learn to Swim	$0.55	pp	$0.55	pp
(q) Red Cross Certification (per Guard), minimum # of guard requirements varies	$16.00 to $36.00	hr	$16.00 to $36.00	hr
(r) Special Events (Dive-In Movie, etc.)	$0.25 to $2.75	event	$0.25 to $2.75	event

3.1.2 Parks

Pavilion Rental Corporate Size	Resident	Per	Non-Resident	Per
(a) One Pavilion - 4 hour minimum (McDowell Mountain)	$56.00	hr	$76.00	hr

Pavilion Rental Large Size	Resident	Per	Non-Resident	Per
(b) One Pavilion - (Arrowhead Park Lion's and Folley Park Memorial)	$23.00	hr	$32.00	hr

Pavilion Rental Medium Size	Resident	Per	Non-Resident	Per
(c) One Pavilion – (Desert Breeze's Acacia, Mesquite, and Palo Verde, and Tumbleweed's San Tan and South Mountain)	$16.00	hr	$22.00	hr
(d) Entire Cluster Complex (Desert Breeze – 3 pavilions)	$48.00	hr	$65.00	hr

Pavilion Rental Small Size	Resident	Per	Non-Resident	Per
(e) One Pavilion	$8.00	hr	$11.00	hr

Other Rentals	Resident	Per	Non-Resident	Per	Commercial	Per
(f) Open Grass Space Rental – Community and Regional Parks	N/A	N/A	N/A	N/A	$30.00	hr
(g) Amphitheater – Community and Regional *	$180.00	hr	$243.00	hr	$270.00	hr
* Chandler Non-Profit Groups	Rate - 50%	hr	N/A	N/A	N/A	N/A

Sport Facility Fees	Resident	Per	Non-Resident	Per	Commercial	Per
(h) Ball Field Reservation - No Lights	$11.00	hr	$15.00	hr	N/A	N/A
(i) Ball Field Reservation - Tournaments/Leagues	$11.00	hr	$15.00	hr	$17.00	hr
(j) Ball Field Lights	$15.00	hr	$21.00	hr	$23.00	hr
(k) ½ Multi Use Field Reservation – No Lights	$5.50	hr	$ 8.00	hr	N/A	N/A
(l) ½ Ball Field Lights	$7.50	hr	$11.00	hr	N/A	N/A
(m) ~~Ball~~ Field Preparation	$25.00	PREP~~hr~~	$34.00	PREP~~hr~~	$38.00	PREP~~hr~~
(n) MINI FIELD PREPARATIONS	$21.00	PREP	$29.00	PREP	$32.00	PREP

(o) ~~Ball~~ Field PREPARATION After-Hour ~~Prep~~	$35.00	PREP~~h r~~	$48.00	PREP~~h r~~	$53.00	PREP~~h r~~
(p) Site Supervisor	$15.00	hr	$21.00	hr	$23.00	hr
(q) Basketball Court	$7.00	hr	$10.00	hr	$11.00	hr
(r) Volleyball Court	$7.00	hr	$10.00	hr	$11.00	hr
(s) Athletic Field Reservation Down Payment	$150.00	event	$150.00	event	$150.00	event
Sport Facility Fees	Resident	Per	Non-Resident	Per	Commercial	Per
(t) Gate Fee - 8 teams or less	$100.00	event	$100.00	event	$100.00	event
(u) Gate Fee - 9 to 16 teams	$150.00	event	$150.00	event	$150.00	event
(v) Gate Fee - 17 teams or more	$200.00	event	$200.00	event	$200.00	event
(w) Concession - 8 teams or less	$100.00	event	$100.00	event	$100.00	event
(x) Concession - 9 to 16 teams	$150.00	event	$150.00	event	$150.00	event
(y) Concession - 17 teams or more	$200.00	event	$200.00	event	$200.00	event
(z) Park Maintenance Staff (After Hours Fee)	$35.00	hr	$48.00	hr	$53.00	hr

Park Vendor License	Resident	Per	Non-Resident	Per
(aa) Application Fee	$25.00	ea	$34.00	ea
(bb) Up to 3 days per week (9-mo. Term)	$250.00	ea	$338.00	ea
(cc) Up to 5 days per week (12-mo. Term)	$500.00	ea	$675.00	ea

Park Use Permits	Resident	Per	Non-Resident	Per
(dd) Malt Beverage Permit	$14.00	ea	$19.00	ea
(ee) Boating Permit	$6.00	yr	$9.00	yr

3.1.3 Recreation Facilities

Rentals	Resident	Per	Non-Resident	Per	Commercial	Per
(a) Multipurpose Room - Small*	$56.00	hr	$76.00	hr	$84.00	hr
(b) Multipurpose Room - Medium*	$85.00	hr	$115.00	hr	$128.00	hr
(c) Multipurpose Room - Large*	$125.00	hr	$169.00	hr	$188.00	hr
(d) Kitchen*	$25.00	hr	$34.00	hr	$38.00	hr
(e) Courtyard - Medium*	$40.00	hr	$54.00	hr	$60.00	hr
(f) Courtyard - Large*	$125.00	hr	$169.00	hr	$188.00	hr
(g) Classroom/Meeting Room - Small*	$25.00	hr	$34.00	hr	$38.00	hr
(h) Classroom/Meeting Room - Medium*	$40.00	hr	$54.00	hr	$60.00	hr
(i) Classroom/Meeting Room - Large*	$60.00	hr	$81.00	hr	$90.00	hr

Rentals	Resident	Per	Non-Resident	Per	Commercial	Per
(j) Classroom/Meeting Room - X-Large*	$70.00	hr	$95.00	hr	$105.00	hr
(k) Gym (After Hours)*	$200.00	hr	$270.00	hr	$300.00	hr
(l) Gym – Half (After Hours)*	$100.00	hr	$135.00	hr	$150.00	hr
(m) Full Facility After Hours	$500.00	hr	$675.00	hr	$750.00	hr

(n) Education Exploration – Class Size 1-30 Students	$65.00	hr	$88.00	hr	N/A	N/A

Rentals	Resident	Per	Non-Resident	Per	Commercial	Per
(o) Education Exploration – Class Size 31-60 Students	$169.00	1.5 hr	$229.00	1.5 hr	N/A	N/A
(p) Education Exploration – Class Size 61-90 Students	$283.00	1.5 hr	$383.00	1.5 hr	N/A	N/A
(q) Set-up Fee for room reservations	$25.00	hr	$34.00	hr	$38.00	hr
* Chandler Non-Profit Groups	Rate - 50%	hr	N/A	N/A	N/A	N/A

Miscellaneous Fees	Resident	Per	Non-Resident	Per
(r) Alcohol Permit	$14.00	ea	$19.00	ea
(s) Balloon Removal Fee	$50.00	event	$50.00	event
(t) Basic Birthday Party Packages (1 to 10 children)	$80.00	event	$108.00	event
(u) Birthday Party Packages, Nature Options (1 to 10 children)	$100.00	event	$130.00	event
(v) Birthday Party Packages, Sportacular Fun Options (1 to 10 children)	$130.00	event	$176.00	event
(w) Birthday Party Packages, Creative Delight, Outdoor Bounce, Main Event & Theme Options (1 to 10 children)	$155.00	event	$210.00	event
(x) Additional Child	$10.00	ea	$14.00	ea
(y) Birthday Party Add-ons (i.e., cake, pizza, drinks, etc.)	Cost of Goods + 50% markup = Retail Price			
(z) Merchandise	Cost of Goods + 50% markup = Retail Price			
(aa) Cake Decoration Kit	$6.00	ea	$6.00	ea
(bb) Body Composition Analyzer – 1X Assessment	$15.00	ea	$21.00	ea
(cc) Body Composition Analyzer – 4X Assessment	$45.00	ea	$61.00	ea

3.1.4 Recreation Fitness Passes

Daily Admission	Resident	Per	Non-Resident	Per
(a) Teen & Active Adult	$3.00	pp	$5.00	pp
(b) Adult	$4.00	pp	$6.00	pp
(c) Youth	$2.00	pp	$3.00	pp

Monthly Admission	Resident	Per	Non-Resident	Per
(d) Teen, Adult & Active Adult	$30.00	pp	$41.00	pp
(e) Youth	$25.00	pp	$34.00	pp
(f) 2 person	$45.00	ea	$61.00	ea
(g) Family (2 Adults & 4 Dependents)	$60.00	ea	$81.00	ea
(h) Additional Family Dependent	$5.00	pp	$7.00	pp

Annual Passes	Resident	Per	Non-Resident	Per

(i) Teen & Active Adult	$225.00	pp	$304.00	pp
(j) Adult	$300.00	pp	$405.00	pp
(k) Youth	$200.00	pp	$270.00	pp
(l) 2 person	$500.00	ea	$675.00	ea
(m) Family (2 Adults & 4 Dependents)	$600.00	ea	$810.00	ea
(n) Additional Family Dependent	$50.00	pp	$68.00	pp

Punch Passes (10 visits)	Resident	Per	Non-Resident	Per
(o) Teen & Active Adult	$27.00	ea	$37.00	ea
(p) Adult	$36.00	ea	$49.00	ea
(q) Youth	$18.00	ea	$25.00	ea

Childwatch	Resident	Per	Non-Resident	Per
(r) Daily	$2.50	ea	$4.00	ea
(s) Month	$20.00	ea	$27.00	ea
(t) Additional Child - Monthly	$10.00	ea	$14.00	ea
(u) Punch Pass - 20 visits	$40.00	ea	$54.00	ea

Corporate Rates	Resident	Per	Non-Resident	Per
(v) Membership Fee, per person	$225.00	ea	$304.00	ea
(w) Corporate Sponsorship	$750.00	yr	$1,013.00	yr

3.1.5 Special Events

Special Event Fees	Resident	Per	Non-Resident	Per	Commercial	Per
(a) Special Recreation Sites (i.e., Dr. AJ Chandler Park/East & West) [1,2]	$180.00	hr	$243.00	hr	$270.00	hr
(b) Downtown East Event Area (i.e., A.J. Chandler Park – Stage Commonwealth Ave, Arizona Place, and Dr. AJ Chandler Park East)[1,3]	$460.00	hr	$621.00	hr	$690.00	hr
(c) Dr. A.J. Chandler Park – Stage Plaza[1,2]	$280.00	hr	$378.00	hr	$420.00	hr
(d) Main Park Rental*	$1,500.00	day	$2,025.00	day	$2,250.00	day
(e) Festival Area*	$700.00	day	$945.00	day	$1,050.00	day
(f) Red Shed Theater*	$300.00	day	$405.00	day	$450.00	day
(g) Road Closure*	$500.00	day	$675.00	day	$750.00	day
(h) Tumbleweed Park Parking Field A, B or C* (see map)	$2,500.00	ea	$3,375.00	ea	$3,750.00	ea
(i) Paseo Vista Dog Park Rental	$20.00	hr	$27.00	hr	$30.00	hr
(j) Trash Can Rental	$17.00	ea	$23.00	ea	N/A	N/A
Special Event Fees	Resident	Per	Non-Resident	Per	Commercial	Per
(k) Restroom Staff	$27.00	hr	$37.00	hr	$41.00	hr
(l) Restroom Supply Reimbursement	$50.00	ea	$68.00	ea	N/A	N/A

(m) Special Event Permit Application Fee – 60 or more days in advance	$50.00	ea	$68.00	ea	N/A	N/A
(n) Special Event Permit Application Fee – less than 60 days in advance	$100.00	ea	$135.00	ea	N/A	N/A
(o) Showmobile/Portable Stage Fee	$325.00	event day	$439.00	event day	$488.00	event day
(p) Portable Bleachers*	$500.00	event day	$675.00	event day	N/A	N/A
(q) Loss of Public Use – Parking Spaces	$1.00	space	$2.00	space	$3.00	space
(r) Bike and Skate Park (Exclusive Use Rental)*	$70.00	hr	$95.00	hr	$105.00	hr
(s) Downtown Events Electrician Fee – Pre-Schedule Event Day - Onsite	$51.00	hr	69.00	hr	$77.00	hr
(t) Facilities Maintenance Fee – On-call Standby	$45.00	hr	$61.00	hr	$68.00	hr

Special Event Fees	Resident	Per	Non-Resident	Per	Commercial	Per
(u) Run/Walk (i.e. 5K/10K) Park Race Route Fee	$100.00	route	$100.00	route	$150.00	route
(v) Parade of Lights Entry Fee	$25.00	entry	$25.00	entry	$25.00	entry
*Chandler Non-Profit Groups	Rate - 50%	hr/event day	N/A	N/A	N/A	N/A
[1] 20% off Event Hour's Rate for Business in Good Standing and Pay into the EMSD						
[2] Set Up/Tear Down Hours	$30.00	hr	$41.00	hr	$45.00	hr
[3] Set Up/Tear Down Hours	$50.00	hr	$68.00	hr	$75.00	hr

Event Vendor Booth Fees (Per Event)	Information	Retail Sales	Food & Beverage	Additional Space	Power
	$50.00	$75.00	$150.00	$50.00/100 sq ft	$30.00

Special Event Deposits	Resident	Per	Non-Resident	Per	Commercial	Per
(w) Cleaning Deposit: 500 participants or less	$250.00	ea	$338.00	ea	$375.00	ea
(x) Cleaning Deposit: 501 participants or more	$500.00	ea	$675.00	ea	$750.00	ea
(y) Showmobile/Portable Stage Deposit	$150.00	ea	$203.00	ea	$225.00	ea
(z) Canopy/Tent Deposit	$250.00	ea	$338.00	ea	$375.00	ea

3.1.6 Tennis Center

Court Rentals	Resident	Per	Non-Resident	Per
(a) Tennis Court – A.M., 1.5 hours	$2.50	pp	$4.00	pp
(b) Tennis Court – P.M., 1.5 hours (includes lights)	$3.50	pp	$5.00	pp
(c) Tennis Court - General Use A.M., 1.5 hours – Chandler Non-Profit/Schools	$4.50	court	$7.00	court
(d) Tennis Court - General Use P.M., 1.5 hours – Chandler Non-Profit/Schools (includes lights)	$7.50	court	$11.00	court

(e) Tennis Court - General Use A.M., 1.5 hours – Private/Commercial	$6.00	court	$9.00	court
(f) Tennis Court - General Use P.M., 1.5 hours – Private/Commercial (includes lights)	$9.00	court	$13.00	court
(g) Tennis Court - Tournaments A.M. Chandler Non-Profit/Schools	$4.50	match	$7.00	match
(h) Tennis Court - Tournaments P.M. Chandler Non-Profit/Schools (includes lights)	$7.50	match	$11.00	match
Court Rentals	Resident	Per	Non-Resident	Per
(i) Tennis Court - Tournaments A.M. Private/Commercial	$6.00	match	$9.00	match
(j) Tennis Court-Tournaments P.M. Private/Commercial (includes lights)	$9.00	match	$13.00	match
(k) Doubles - Prepay A.M. - 2 hrs	$13.50	court	$19.00	court
(l) Doubles - Prepay P.M. - 2 hrs (includes light fee)	$16.50	court	$23.00	court
(m) Singles - Prepay A.M. - 2 hrs	$6.50	court	$9.00	court
(n) Singles - Prepay P.M. - 2 hrs (includes light fee)	$9.00	court	$13.00	court

Other Rentals	Resident	Per	Non-Resident	Per
(o) Tennis Ball Machine – A.M., 30 minutes (includes court)	$6.50	ea	$9.00	ea
(p) Ball Cart Rental	$5.00	ea	$7.00	ea
(q) Tennis Ball Machine – P.M., 30 minutes (includes court and lights)	$9.00	ea	$12.00	ea
(r) After Hour Staff Fee	$25.00	hr	$34.00	hr
(s) Extended League Play Fee, 30 minutes	$2.00	ea	$3.00	ea
(t) Pro Ball Cart Rental	$2.00	ea	N/A	N/A
(u) Pro Court Rental – P.M., 30 minutes (includes lights)	$6.00	ea	N/A	N/A
(v) Pro Court Rental – P.M., 60 minutes (includes lights)	$10.00	ea	N/A	N/A
(w) Pro Court Rental – A.M., 60 minutes	$7.00	ea	N/A	N/A
(x) Pro Court Rental – A.M., 30 minutes	$4.00	ea	N/A	N/A

3.2 Recreation Division Registration Based Class, Program and Activity Fees: [Ch.§31-21.B]
The formulas presented below may include a factor rate, program supplies and costs, or staff costs. The factor rate is a multiplier that allows the standardization of the program fee over different instructors paid at different rates so that the program as a whole over the entire system meets its cost recovery target. The program supplies and costs include all elements of the program including such things as materials, field trips and transportation, food, contractual scorekeepers/officials. The staff costs include any part-time/temporary staff hired to coordinate, oversee or maintain any element of the program.

3.2.1 Community Recreation Program (CRP) Classes: Devau The formula for establishing the fee to participants for special interest classes, such as, arts/crafts, pom and cheer, dance, Spanish, photography, martial arts, ceramics, musical instrument skills, etc., is:

(Class Length + Prep Time) x # of days x 2.75 Factor Rate (includes wages) + $3 Admin = participant cost

3.2.2 CRP Classes: Contractual The formula for establishing the fee to participants for special interest classes, such as, financial planning, computer skills, women's self-defense, public speaking, advanced robotics, etc., is:

Instructor Fee + 28% of Instructor Fee = participant cost

3.2.3 Specialized Fitness Classes The formula for establishing the fee to participants for classes, such as, zumba, racketball, yoga, spin, pilates, tai chi, etc., is:

(Class Length + Prep Time) x # of days x 4.5 Factor Rate (includes wages) + $3 Admin = participant cost

3.2.4 Fitness Training The formula for establishing the fee to participants for individual training is:

Instructor Fee = participant cost (City receives 50% of fee from instructor)

3.2.5 Personal Training Individual
Participant Cost = 1.75 factor rate x instructor fee
(Individual Personal Training Session Fee)

Personal Training – Group (maximum of 2)
Participant Cost = 2.5 factor rate x instructor fee divided by 2
(Group Training Session paid per person)

Personal Training – 10 Session Package
Participant Cost = Individual Personal Training Session Fee x 9 sessions
(Pay for 9 and receive 1 session free)

3.2.6 Camp Challenge and Therapeutic Recreation Social Events (participants with disabilities) – The formula for establishing the fee is:

$$\frac{\text{Program Supplies and Costs + Staff Costs}}{\text{Minimum \# of Participants}} \times 15\% \text{ cost recovery} = \text{participant cost}$$

3.2.7 Camps, Clinics, Adult Sports, and Aquatics – The formula for establishing the fee to participants for classes, such as, building blocks, field trips, excursions, intersession and summer camps, sport clinics, adult leagues (i.e., softball, volleyball, etc.), aqua fit, aquatics certification classes plus appropriate Red Cross fee (if applicable), recreation swim teams, semi-private swim lessons, etc., is:

$$\frac{\text{Program Supplies and Costs + Staff Costs} \\ \text{+ Appropriate Red Cross Fee (if applicable)}}{\text{Minimum \# of Participants}} = \text{participant cost}$$

3.2.8 Programs and services that address specific user interest offered at fair market value. The formula for establishing the fee to participants for lessons, leagues, and tournaments such as cardio tennis, mixed doubles league, singles and doubles tournaments, etc. is:

Fair Market Value = participant cost

3.2.9 Group Swim Lessons The formula for establishing the fee is:

$$\frac{\text{Program Supplies and Costs + Staff Costs} \\ \text{+ Red Cross Learn to Swim fee}}{\text{Minimum \# of Participants}} \times 85\% \text{ cost recovery} = \text{participant cost}$$

3.2.10 Chandler Youth Sports Association (CYSA) The formula for establishing the fee for the CYSA affiliates ball field light use is:

$$\text{Total Cost of Hours of Athletic Light usage during Primary Season} \times 50\% \text{ cost recovery} = \text{reimbursement to the City}$$

3.3 Museum

~~Rentals~~	~~Resident~~	~~Per~~	~~Non-Resident~~	~~Per~~	~~Commercial~~	~~Per~~

~~(a) Agave Room*~~	~~$85.00~~	~~hr~~	~~$115.00~~	~~hr~~	~~$128.00~~	~~hr~~
~~(b) Saguaro Room*~~	~~$125.00~~	~~hr~~	~~$169.00~~	~~hr~~	~~$188.00~~	~~hr~~
~~(c) The Living Room*~~	~~$125.00~~	~~hr~~	~~$169.00~~	~~hr~~	~~$188.00~~	~~hr~~
~~(d) Sunken or Historic Courtyard*~~	~~$40.00~~	~~hr~~	~~$54.00~~	~~hr~~	~~$68.00~~	~~hr~~
~~(e) Set-up Fee for Room Reservations~~	~~$25.00~~	~~hr~~	~~$34.00~~	~~hr~~	~~$38.00~~	~~hr~~
~~(f) Merchandise~~	~~Cost of Goods + 50% markup = Retail Price~~					
~~*Chandler Non-Profit Groups~~	~~Rate - 50%~~	~~hr/event day~~	~~N/A~~	~~N/A~~	~~N/A~~	~~N/A~~

(a) Banner Museum Exhibit Rental.....$25.00 per rental
(b) Museum School Trunk Education Resource Rental.....$25.00 per rental

Sec. 4 Development Services: (Amd. in entirety Res. 4505)

4.1 Land Use and Zoning:

4.1.1 Administrative Design Review: [§35-1700]
(a) New construction and building additions that are greater than 10% of the existing building area $275.00
(b) Minor changes such as exterior modifications to existing buildings, façade renovations, new canopies, fixtures, color and/or material changes, new outdoor patios, and building additions that that are less than 10% increase in building area.....$115.00

4.1.2 General Plan Amendments: [§35-2504]
(a) Text amendment (regular).....$785.00
(b) Map amendment (special) $785.00

4.1.3 Rezonings: [§35-2504]
(a) Zoning District Changes and Zoning Extensions $785.00
(b) Plus, per acre $40.00
(c) HISTORIC PRESERVATION NEIGHBORHOOD APPLICATION $100.00
(d) RESIDENT/HOME ADDITION OF HISTORIC PRESERVATION OVERLAY APPLICATION $50.00

4.1.4 Preliminary Development Plans: [§35-2504] $315.00

4.1.5 Area Plans [§35-2504] $785.00

4.1.6 Use Permits: [§35-2504]
(a) Single-family.....$315.00
(b) All others as detailed in Chandler City Code Chapter 35-2100 .....$475.00
(c) Use permit extension .....Same as Original

4.1.7 Variances: [§35-2504]
(a) Single-family.....$165.00
(b) All others.....$315.00

4.1.8 Continuances: [§35-2504]
(a) Applicant's request.....$165.00

4.1.9 Subdivision Planning Fees: [§48-7.1]
(a) Preliminary plat.....$785.00
(b) Plus, per lot..... $7.85
(c) Final plat $785.00
(d) Plus, per lot $7.85

4.1.10 Minor Land Divisions application fee [§48-13.6].....$315.00

4.1.11 Miscellaneous Planning-Related Fees [§35-2504]:
(a) Administrative use permits [§35-305].....$120.00
(b) Zoning verification letters $275.00

4.2 Sign Permit Application [§39-7.4]
Two and five tenths percent (2.5%) of the value of the sign plus twenty-five cents ($0.25) per square foot. If work is started before a permit has been issued, the fees specified above shall be doubled.

4.3 Banner Application Fee [§32-6] (Res. 3482) $100.00

4.4 Site Development Fees

4.4.1 Site Development Review Fee
(a) Major (new development/redevelopment) $2,395.00
(b) Plus, per acre $105.00
(c) Minor (modification to existing development).....$385.00

4.4.2 Tenant Improvement Plan Review $50.00/hr

4.4.3 Zoning Clearance.....$120.00

4.5 Civil Plan Review Fees [§47-6 & 7]:
Civil Plan review fees are based upon the number of sheets submitted for review and approval. Each type of improvement plan (i.e., grading and drainage, water, sewer, right-of-way improvements) may be submitted separately or in combination.

Improvement Plans (including Grading and Drainage) .....$440.00 per sheet
Fourth and subsequent Review Fees .....$150.00 per sheet

4.5.1 Fees for review of the plan revisions which are initiated by the developer or required due to an error or oversight of the developer after plans have been approved by the City Engineer, shall be charged at the flat rate of $110.00 for each revision or set of revisions reviewed.

4.5.2 Civil Engineering Subdivision Review Fees [§48-7]
(a) Preliminary Plat.....$785.00
(b) Plus, per lot..... $7.85
(c) Final Plat $850.00
(d) Plus, per lot..... $8.50
(e) Minor land division $340.00
(f) Plat recording ..... Pursuant to Maricopa County Recorder Fee Schedule
(g) CC&R recording ..... Pursuant to Maricopa County Recorder Fee Schedule

4.6 Building Safety [§29-1] (Res. 4703)
Building permit fees for new construction are based upon the most current building valuation data published by the International Code Council accessible at:
http://www.iccsafe.org/codes-tech-support/codes/code-development-process/building-valuation-data/

Construction valuations for alterations shall be based on all construction costs involved and shall be approved by the Building Official.

4.6.1 Building Permit Fees

Total Valuation	Fee
$1.00 to $500	$50.00
$501 to $2,000	$50.00 for the first $500 plus $1.20 for each additional $100 or fraction thereof, to and including $2,000
$2,001 to $25,000	$68.00 for the first $2,000 plus $12.50 for each additional $1,000 or fraction thereof, to and including $25,000
$25,001 to $50,000	$355.50 for the first $25,000 plus $9.00 for each additional $1,000 or fraction thereof, to and including $50,000

$50,001 to $100,000	$580.50 for the first $50,000 plus $6.25 for each additional $1,000 or fraction thereof, to and including $100,000
$100,001 to $500,000	$893.00 for the first $100,000 plus $5.00 for each additional $1,000 or fraction thereof, to and including $500,000
$500,001 to $1,000,000	$2,893.00 for the first $500,000 plus $4.25 for each additional $1,000 or fraction thereof, to and including $1,000,000
$1,000,001 and up	$5,018.00 for the first $1,000,000 plus $2.75 for each additional $1,000 or fraction thereof

4.6.2 Building Plan Review Fees

(a) Building plan review fee ..... 65% of building permit fee
(b) Additional revisions to approved plans ..... $60.00/hour, 1 hour minimum
(c) Expedited
(at Building Official's discretion) (Res. 4703) ..... Twice the normal plan review fee
(d) Deferred submittal items ..... $60.00/hour, 1 hour minimum
(e) Renew action on expired application ..... New building plan review fee
(f) Sign permit building plan review ..... $60.00/hour, 1 hour minimum
(g) Plan review services without a specific fee ..... $60.00/hour, 1 hour minimum

4.6.3 Inspection Fees

(a) Inspection outside normal business hours ..... $75.00/hour, 2 hour minimum
(b) Re-inspection fee ..... $60.00/hour, 1 hour minimum
(c) Inspections without a specific fee ..... $60.00/hour, 1 hour minimum
(d) Sign permit inspection ..... $60.00/hour, 1 hour minimum

4.6.4 Miscellaneous Fees:

(a) Demolition permit, commercial/residential $100.00
(b) Electrical service 400 amps or less $100.00
(c) Archival fee ..... $1.00 per page
(d) Residential pool permit fee $110.00
(e) Residential spa permit fee $55.00
(f) Annual Facility Permit (trust account required) .....
..... $1,000.00 registration plus $60.00 per hour on-site review/inspection
(g) Certificate of Occupancy not associated with a Building Permit $100.00
(h) Foundation Only Permit ..... 25% of calculated building permit fee
(i) Permit Reinstatement (within one-year of expiration) ..... 50% of current permit fee
(j) Administration Buy-in (per agreement) $100.00
(k) Residential solar photovoltaic system permit fee (Res. 4703) $150.00
(l) Residential solar water heating system permit fee (Res. 4703) $150.00
(m) Residential ramada/accessory storage building permit fee $150.00
(n) Administrative fee for permits from approved standard plans $75.00
(o) Temporary Certificate of Occupancy ..... $100.00 for first 30 days,
..... $500.00 for each 30 day renewal for a maximum of 180 days
(p) Appeal to the Building Official $180.00
(q) Miscellaneous minor residential work .....
(1-6 gas outlets, 1-2 branch electrical circuits 1-6 plbg. openings, etc.) $100.00
(r) Permit issuance when no other fees apply $60.00

Sec. 5 Neighborhood Resources:

5.1 Neighborhood Resources Non-Compliance/Re-inspection fee [Ch. §30-6.8]

~~(a) First non-compliance re-inspection fee ..... $50.00~~
~~(b) Subsequent re-inspection w/continued non-compliance fee(s) ..... $75.00~~
(a) Abatement Administrative Fee [Ch §26.10] (Res. 4703) ..... ~~$150.00~~25% OF CONTRACTOR COST
(b) DEMOLITION ABATEMENT ADMINISTRATIVE FEE ..... 25% OF DEMOLITION CONTRACTOR COST

Sec. 6 Public Safety:

6.1 Fire Department, (Chapters 27 & 28): Adopts International Fire Code

6.1.1 Hazardous Materials Permit Fee [§28-6] (Res. 3312)
(a) More than 550 pounds of materials on site, annual fee $300.00
(b) HAZMAT materials management plan required, annual fee $500.00

6.1.2 Assembly Permit (100 or more occupants) [§28-6] ..... No Charge

6.1.3 Cutting & Welding Permit [§28-6] ..... No Charge

6.1.4 High-Piled Combustible Storage Permit [§28-6]
(a) Buildings 5,000 or Less Sq. Ft. ..... No Charge
(b) Buildings 5,001 or More Sq. Ft. ..... No Charge

6.1.5 Firework Display Permit (per event) [§28-6] $250.00

6.1.6 Carnival & Fair Permit
(Amusement Events, Trade Shows, Vehicle Displays) [§28-6] $125.00

6.1.7 Motor Vehicle Fuel-Dispensing Stations Permit [§28-6] (one-time) $105.00

6.1.8 Temporary Membrane Structures, Tents [§28-6]
(a) Tent or Canopy 801 or More Sq. Ft. (Res. 4703) $170.00
(b) Each Additional Tent or Canopy 801 or More Sq. Ft. (Res. 4703) $40.00
(c) Tent or canopy less than 801 Sq. Ft. (Res. 4703) ..... No Charge

6.1.9 Open Burn Permit [§28-6 & 7] (Res. 4703)
(a) Open flame, or grease laden vapor cooking in accordance with 28-6 ..... $85.00
(b) Open Flame cooking devices more than 600 sq. in. cooking surface
or more than 5 gal. LP gas (20lbs) (No charge if less than that amount) $85.00

6.1.10 Fire Protection Equipment Contractor s License [§28-6] $85.00

6.1.11 All Other Permits Not Listed, but Included in the Fire Code [§28-6] $40.00

6.1.12 Fire User Fee [Ch.27-4] [§27-3 & 4] (Res. 3482, Res. 4119, Res. 4703)
Charges for Fire response where tactical actions are initiated or Emergency Medical Response where medical evaluation is initiated:
(a) 4-person apparatus response: ..... $1,400 per response apparatus plus the administrative and hourly personnel charges set forth below;
(b) 2-person apparatus response: ..... $700 per response apparatus plus the administrative and hourly personnel charges set forth below;
(c) 1-person apparatus response: ..... $350 per response apparatus plus the administrative and hourly personnel charges set forth below;
(d) Additional hourly* personnel charge:
i. No charge for first hour of response;
ii. $31 per firefighter for hours 2 through 24
iii. $45 per hour per firefighter for hours 25 and beyond

*The additional hourly personnel charges will be billed in 15 minutes increments and measured from the time that fire apparatus/personnel leaves the fire station for a response to the time that fire apparatus/personnel arrive back at the fire station after the response.

(e) Emergency Medical Stand-by:
i. Per Firefighter (per hour) $46.00
ii. Equipment Charge (per event) $175.00
(f) Fire Prevention Stand-by per person (per hour) $52.00

(g) Administrative charge.....10% of the charges assessed as outlined in (a) – (f)

6.1.13 Arson Restitution & Investigation Fees (Pursuant to A.R.S. § 13-1709) (Res. 4703)

(a) Emergency response: The emergency response cost to the City in responding to a fire determined to be caused by arson is the same as the charges set forth in Section 6.1.15.
(b) Investigation: The cost to the City for investigating a fire caused by arson is:
  i. $42.00 per fire investigative hour (non-overtime)
  ii. $67.00 per fire investigative hour (overtime)
  iii. Actual cost of materials and supplies utilized during the investigation

6.1.14 Training Center Room Fees [Ch.§27-8]

(a) Classroom
  i. Small Room (under 60 seats)
    Business Hours Rate ..... $40/hr (2-hr minimum)
    Evening/Weekend Rate ..... $70/hr (2-hr minimum)
  ii. Large Room (over 60 seats)
    Business Hours Rate ..... $65/hr (2-hr minimum)
    Evening/Weekend Rate .....$115/hr (2-hr minimum)
(b) Auditorium (250 seats)
    Business Hours Rate .....$130/hr (2-hr minimum)
    Evening/Weekend Rate .....$220/hr (2-hr minimum)

6.1.15 Other Training Center Fees [Ch.§27-8]

(a) Chandler Safety Officer $75/hr
(b) Public Safety Training Center Liaison $75/hr
(c) Chandler Facility Prop Technician $50/hr
(d) Fire Instructor..... $75/hr (4-hr minimum)
(e) Skills Training Area ..... $50/hr (2-hr minimum)
(f) Fees for Material/Equipment/Props Used for Training:
  i. Liquid Smoke .....Actual Costs
  ii. Propane .....Actual Costs
  iii. Sheeting.....Actual Costs
  iv. Class A Burn Building[1] .....$100/hr (4-hr minimum)
  v. Burn Tower (propane)[1]..... $75/hr (4-hr minimum)
  vi. Confined Space Prop/TRT..... $35/hr (4-hr minimum)
  vii. Outside Burn Prop (propane)[1]..... $35/hr (4-hr minimum)
  viii. Flashover Chamber (must provide own instructors)[1]..... $50/hr (4-hr minimum)
  ix. Forcible Entry Prop (plus cost of replacement lock) ..... $35/hr (4-hr minimum)
  x. Vertical Ventilation Prop ..... $50/hr (4-hr minimum)
    [(1)] Compliance with NFPA 1403 required. Chandler Safety Officer may be required
(g) Hydrant Connection Fee .....$100 minimum
(h) Janitorial Charge.....$100.00
(i) Fire Recruit Academy .....$4,500 per recruit
(j) PARAMEDIC PROGRAM STUDENT REGISTRATION ..... $6,000 PER STUDENT
(k) Disposal Fee $50.00

6.1.16 Re-inspection after initial post-notice inspection for same violation [§28-4] $40.00

6.2 Police Department, (Chapters 24 & 30): (Res. 4035, Res. 4535, Res. 4703)

6.2.1 Second or subsequent response to disturbances [§30-7.3] (Res. 3482) .....Actual Cost

6.2.2 Alarm User s Permit [§24-4.2]

(a) Application Fee $10.00
(b) Annual Renewal Fee $10.00
(c) Administrative Penalty for connecting without a permit [§24-8.2] (Res. 3482) $10.00

6.2.3 Alarm Late Filing Fee [§24-9] $25.00

6.2.4 Alarm Permit Reinstatement Fee [§24-5.7] $25.00

6.2.5 Duplicate Permit Copy Fee [§24-9.3] (Res. 3482) $10.00

6.2.6 Fingerprinting $10.00

6.2.7 Extra Duty Fee (Res. 4535, Res. 4703)
(a) Rate per hour per officer/sergeant in non-supervisory capacity
(topped out officer rate at time and a half; vendor pays directly to officer/sergeant)
(b) Rate per hour per sergeant in supervisory capacity
(topped out sergeant rate at time and a half; vendor pays directly to sergeant)
(c) Rate per hour for Workers Compensation coverage (vendor pays directly to City)
(effective October 1, 2014) $2.50
(d) Rate per hour for Vehicle usage (vendor pays directly to City) $6.00

6.2.8 Vehicle Impound Fee
(Pursuant to A.R.S §28-3513 and Police Administrative Policy) $150.00

6.2.9 Pawnbroker Report Fee [§15-2] ..... $3.00/per report

Sec. 7 Public Works & Utilities:

7.1 Public Works Encroachment and Inspection, (Chapter 46):

7.1.1 Encroachment Permit

(a) Class 1 encroachment permit application base fee [§46-3] $97.00
(b) Class 2 encroachment permit application base fee [§46-4] $97.00
(c) Class 3 encroachment permit application base fee [§46-5] (Res. 3336) $97.00
(d) Class 4 encroachment permit application base fee [§46-6] (Res. 3336) $97.00
(e) Class 5 encroachment permit application base fee [§46-7] (Res. 3336) $97.00
(f) Class 6 encroachment permit application base fee [§46-8] (Res. 3336) $97.00
(g) Class 7 encroachment permit application fee [§46-9] (Res. 3336) $97.00
(h) Class 8 encroachment permit application fee [§46-10] (Res. 3336) $97.00
(i) Class 9 encroachment permit application fee [§46-11] (Res. 4504) $97.00
(j) Encroachment Permit ROW use fee (Res. 4430, Res. 4703) ..... $2.27 per linear foot (for calendar year 2019)*

* Pursuant to the approved agreements, the linear foot fee shall be adjusted annually, without further City Council action, on January 1st of each year by an amount equal to the percentage increase, if any, in the Consumer Price Index (CPI-U, Western Region - All items) over the previous 12-month calendar period. In no event shall the rate be increased more than three and eight-tenths (3.8%) per cent over any twelve (12) month period between anniversary dates, unless otherwise approved by City Council. Should the annual change in the CPI-U indicate a decline, the fee shall not diminish.

7.1.2 Cable Television License application base fee [§46-8.8E] $10,000.00

7.1.3 License applications base fee for all Chapter 46 licenses except cable (Res. 3336) $3,000.00

7.1.4 Penalty Assessment for failure to obtain encroachment or street cut permit $1,000.00

7.1.5 Pavement Damage Restoration Fee (Res. 3692)

(a) Within one year of construction of new streets, renovation or reconstruction of a street (as defined by City Code):
  i. For Each Cut:
    a. For 5 sq. yds. or less ..... $330.00 per sq. yd. of cut
    b. For larger than 5, to 100 sq. yds. ..... $1,650.00 plus $18.00 per sq. yd. of cut over 5 sq. yds.
    c. For larger than 100 sq. yds. ..... $3,360.00 plus $14.00 per sq. yd. of cut over 100 sq. yds.
  ii. For cuts within the first year, the fee is in addition to the requirement for mill and overlay/inlay in accordance with City Code §46-2.7.
  iii. Or for cuts within the first year, the applicant may choose to reconstruct the street in accordance with City Code §46-2.7 in lieu of paying the above fee.

(b) From one to two years after construction of new streets, renovation or reconstruction of a street (as defined in the City Code):
  i. For Each Cut:
    a. For 5 sq. yds. or less ..... $330.00 per sq. yd. of cut
    b. For larger than 5, to 100 sq. yds. ..... $1,650.00 plus $18.00 per sq. yd. of cut over 5 sq. yds.
    c. For larger than 100 sq. yds. ..... $3,360.00 plus $14.00 per sq. yd. of cut over 100 sq. yds.
  ii. For cuts from one to two years after construction of new streets, renovation or reconstruction of a street, the applicant may choose to perform a mill and overlay/inlay, in accordance with City Code §46-2.7 in lieu of paying the above fee.

(c) From two to four years after construction of new streets or renovation or reconstruction of a street (as defined by City Code):
  i. For Each Cut:
    a. For 5 sq. yds. or less ..... $230.00 per sq. yd. of cut

b. For larger than 5, to 100 sq. yd. .....$1,150.00 plus $13.00 per sq. yd. of cut over 5 sq. yds.
c. For larger than 100 sq. yds. .....$2,385.00 plus $10.00 per sq. yd. of cut over 100 sq. yds.

(d) From four to six years after construction of new streets or renovation or reconstruction of a street (as defined by City Code):
i. For Each Cut:
a. For 5 sq. yds. or less..... $130.00 per sq. yd. of cut
b. For Larger than 5, to 100 sq. yds. ..... $650.00 plus $8.00 per sq. yd. of cut over 5 sq. yds.
c. For larger than 100 sq. yds. .....$1,410.00 plus $5.00 per sq. yd. of cut over 100 sq. yds.

(e) Within one year prior to a City street reconstruction project approved in the capital program of the City's Annual Budget.....No Charge

(f) For cuts from two to six years after construction of new streets, renovation or reconstruction of a street, the applicant may choose to perform a mill and overlay/inlay, in accordance with City Code §46-2.7 in lieu of paying the above fee.

(g) The minimum fee shall be based on one square yard. If a pavement cut is so extensive, or the cuts in one area are so numerous that the permittee prefers to perform a renovation (major rehabilitation) of the street in accordance with the City Engineer's requirements, for the full width of any impacted lane and the full length of any cuts plus fifty feet in both directions from the area of the cut on arterial streets and twenty-five in both directions from the area of the cut on collector streets, the permittee may choose to do such renovation in lieu of the Pavement Restoration Fee and such reconstruction shall satisfy the fee requirement. Provided, however, this does not apply to pavement cuts in streets within two years of construction, renovation or reconstruction. During the first two years, those who desire to perform reconstruction in lieu of paying the pavement restoration fee will be required to reconstruct the street to the satisfaction of the City Engineer. Those companies exempt from the Pavement Restoration Fee shall perform the required repairs and restoration in accordance with City Code §46-2.7 and their contracts with the City unless their written application to pay the established fee in lieu of such restoration is granted by the City Engineer.

(h) For pavement cuts or potholes less than two square feet, no fee will be charged, or for companies with license and franchise agreements that require street reconstruction no reconstruction will be required, provided the pavement cut or pothole meets the spacing requirements shown on Standard Detail No. C-111.

(i) If a pothole cut is done in advance of construction that will remove that portion of the pavement within a reasonable time as specified by the City Engineer, no fee will be charged.

(j) The definitions set forth in Section 46-2.7 are applicable to the provisions herein.

(k) This Pavement Restoration Fee shall not be charged to nor paid by the City Street Division or the City Traffic Engineering Division.

7.1.6 Small Wireless Facility §46-10.3 (Pursuant to A.R.S. §9-592(L), §9-592(D)(4), §9-595(C) and §9-595(D))

(a) Application Fee
i. New/Replacement Pole.....$750.00
ii. Pole exceeding 50ft in height.....$1,000.00
iii. Consolidated Application Fee, Existing Pole, Sites 1-5.....$100.00
iv. Consolidated Application Fee, Existing Pole, Sites 6-25..... $50.00

(b) Annual Right-of-Way Use Fee ..... $50.00 (for each facility in the City's right-of-way or utility easements)

(c) Annual Right-of-Way Use Fee, Pole exceeding 50ft in height.....$450.00

(d) Annual City Pole Use Fee..... $50.00 (for each facility installed on a City-owned pole or on a City owned wireless support structure in the City's right-of-way or utility easements)

7.1.7 Application for disposition of roadway or easement [§47-16.2]

(a) ROW vacation application fee (developed residential) $400.00
(b) ROW vacation application fee (non-residential) $1,000.00
(c) ROW appraisal fee (deposit of $200.00 required) ..... Actual Cost
(d) Extinguishment of easements application fee (developed residential) $200.00
(e) Extinguishment of easements application fee (non-residential) $500.00
(f) Extinguishment of easements appraisal fee (deposit of $200.00 required) ..... Actual Cost

7.1.8 Fire Hydrant Meter Deposit [§52-5] (Res. 4703) $1,450.00

7.1.9 Reimbursement Agreement Transaction fee [Ch. 51] $100.00

7.1.10 Median & Street Light Construction Buy-In Assessment [§47-12 & 47-15] (Res. 3482)

½ Front Foot	Per foot
(a) Median construction	$11.00 LF
(b) Streetlighting in median	$11.00 LF
(c) Landscaping in median	$1.80 SF
(d) Streetlighting behind curb	$9.00 LF

7.1.11 Water Service Buy-In Assessment [§52-26] (Res. 3482)

	6″	8″	10″	12″	16″
(a) Full front foot	24.00	33.00	38.00	43.00	66.00
(b) ½ front foot	12.00	16.50	19.00	21.50	33.00

7.1.12 Reclaimed Water Buy-In Assessment [§53-12] (Res. 3482)

	12″
Full front foot	37.00
½ front foot	18.50

7.1.13 Sewer Service Buy-In Assessment [§51-20] (Res. 3482)

Full Front Foot	8″	10″	12″	15″
(a) 0 – 10′ depth	25.00	31.00	35.00	43.00
(b) 10 – 18′ depth	43.00	48.00	52.00	61.00
(c) *Over 18′	49.00	53.00	54.00	63.00

1/2 Front Foot	8″	10″	12″	15″
(d) 0 – 10′ depth	12.50	15.50	17.50	21.50
(e) 10 – 18′	21.50	24.00	26.00	30.50
(f) *Over 18′	24.50	26.50	27.00	31.50

*(add $2.50 per full front foot for each additional foot in depth)

7.1.14 Inspection and Testing Fees [§47-7.2] (Res. 3336 , Res. 3482, Res. 4505)

Pavement	Unit	Fee/unit without testing
(a) Paving Public Right of Way/Private Streets & Drives	SY	0.36
(b) Parking Areas	SY	0.10
(c) Overlay (all)	SY	0.12
(d) Alley Surface	SY	0.36

(e) Street Sign Bases [Ch. 48-12.7]	EA	10.00
(f) Street Sign (City)	EA	80.00
(g) Mill & Overlay	SY	0.25

Concrete	Unit	Fee/unit without testing
(h) Driveway or alley entrance	EA	41.17
(i) Valley Gutter	LF	0.36
(j) Apron	EA	10.98
(k) Curb & gutter	LF	0.19
(l) Sidewalk	SF	0.07
(m) Catch Basin/Scupper	EA	41.17
(n) Sidewalk Ramp	EA	82.34

Water	Unit	Fee/unit without testing
(o) Water Pipe (4" or larger)	LF	0.82
(p) Water Services	LF	0.55
(q) Pavement Cut	SY	23.87
(r) Tapping Sleeve & Valve (non-fire or fire line)	EA	82.34
(s) Landscape Irrigation System with Backflow Prevention Devices	EA	82.34
(t) Fire Line with and without backflow prevention devices	LF	0.82

Reclaimed Water	Unit	Fee/unit without testing
(u) Reclaimed Water (4" or larger)	LF	0.82
(v) Reclaimed Water Service	LF	0.48
(w) Pavement Cut	SY	23.87
(x) Tapping Sleeve and Valve	EA	82.34

Sewer	Unit	Fee/unit without testing
(y) Sewer pipe (8" or larger)	LF	1.10
(z) Sewer service	LF	0.82
(aa) Manhole	EA	82.34
(bb) Pavement cut	SY	23.87
(cc) Clean out/drop connection	EA	42.54

Drainage	Unit	Fee/unit without testing
(dd) Retention Basin (Grading)	Acre	68.62
(ee) Irrigation Pipe (SRP, RWCD, Private)	LF	1.07
(ff) Stormwater Pipe (including Box Culverts)	LF	1.16
(gg) Headwalls	EA	42.54
(hh) Pavement Cut	SY	23.87
(ii) Drywells	EA	76.85
(jj) Stormwater Retention Pipe	LF	1.16

Utilities [Ch §47-7.2]	Unit	Fee/unit without testing
(kk) Utility trenching in ROW/Easement	LF	0.22
(ll) Street Light Pole (public)	EA	41.17
(mm) Repealed by Ord. 4104 adopted 10/30/08		
(nn) Repealed by Ord. 4104 adopted 10/30/08		
(oo) Borings on a local street	LF	0.14
(pp) Borings on an Arterial or collector street	LF	0.21
(qq) Pavement cut	SY	23.87
(rr) Service Drops	EA	20.59
(ss) Offsite After hours inspection fee	HR	97.00

Permits [Ch §47-7.2]	Unit	Fee/unit without testing
(tt) Permit application fee	EA	97.00
(uu) As Built Approval fee	SHEET	13.72
(vv) Blanket Permits	EA	450.00
(ww) New Construction Pavement Preservative Seal Coat Permit	YD	0.90

7.2 Solid Waste Services, (Chapter 44):

7.2.1 Monthly Solid Waste Disposal Fee $17.95

A monthly disposal fee applies to all covered residences receiving basic solid waste services as set forth in Chapter 44 of the City Code. The City will bill the monthly disposal fee on the water account serving each covered residence. When the owner or occupant of a covered residence does not have an active water account to bill, a utility billing account will be established. A security deposit, as specified in section 50-3 of the City Code, shall be required from owners or occupants of covered residences without an active water account.

7.2.2 Cost of Solid Waste Containers $148.00

The initial cost of providing refuse containers and recycling containers, including the cost of assembling such containers, for newly constructed covered residences, and shall be paid by the person applying for the initial building permit for each new covered residence at the same time that the fees for the residential building permit are paid. When property with a covered residence located thereon is annexed into the City, the owner of such property shall pay the initial cost to the City of providing such property with a refuse and a recycling container.

7.2.3 Additional and Replacement Container Cost

(a) Additional curbside refuse container (Res. 4703)..... $60.00
(b) Replacement of a damaged curbside refuse container or recycling container, where the damage was caused by the resident (Res. 4703)..... $60.00
(c) Non-damaged container replacement with refurbished container $30.00
(d) Rescheduling container repair/replacement when container is not set out (Res. 4703) $26.00
(e) Additional recycling container ..... No Charge
(f) Additional alley refuse container $235.00
(g) Replacement of a damaged alley refuse container where the damage was caused by the resident $235.00

7.2.4 Additional Monthly Refuse Container Collection Fees

(a) Curbside Refuse Container (Res. 4703) $10.00

This monthly collection fee is in addition to the fee for basic solid waste services set forth in Section 50-15, Code of the City of Chandler, and shall apply to each additional refuse container provided pursuant to subsection 7.2.2 (a).

(b) Alley Refuse Container $7.50
This monthly collection fee is in addition to the fee for basic solid waste services set forth in Section 50-15, Code of the City of Chandler, and shall apply to each additional refuse container provided pursuant to subsection 7.2.2 (d).

7.2.5 Special Collection Fees

(a) Fee for one-time special curbside refuse container collection requested by an owner or occupant of a covered residence $17.50
(b) Fee for one-time special alley refuse container collection requested by an owner or occupant of a covered residence $25.00

7.2.6 Bulk Material Collection Fees

(a) Bulk materials collected for disposal (1 per 6 weeks) ..... No Charge
(b) Bulk materials collected for recycling ..... No Charge
(c) Additional bulk materials collected per collection event $30.00
(d) Freon recovery (Res. 4703) $15.00

7.2.7 Commercial Refuse Hauler Permit

(a) Annual application fee (per applicant) $300.00
(b) Per vehicle annual fee $1,000.00

7.2.8 Recycling Solid Waste Collection Center Fees [§44-7.2A] (Res. 4703)

(a) Per ton fee (based on current price paid by City for self-haul and disposal) as listed:
  i. Concrete, construction debris $50.00
  ii. Dirt, gravel, rock $50.00
  iii. Manure $50.00
(b) Freon recovery $15.00

7.2.9 Multi-family (non-residential) disposal fee (per load) [§44-7.2B] (Res. 4703) $20.00

7.2.10 City Services (per ton) $46.00

Resolution No. 3175 – 12/16/99 RE-ADOPTING THE FEE SCHEDULE IN CONJUNCTION WITH THE REVISIONS TO THE CITY CODE

Resolution No. 3204 – 03/23/00 AMENDING THE CITY FEE SCHEDULE REGARDING AIRPORT FEES

Resolution No. 3312 – 08/10/00 AMENDING THE CHANDLER CITY FEE SCHEDULE REGARDING HAZARDOUS MATERIAL PERMIT FEES

Resolution No. 3336 – 11/16/00 AMENDING THE FEE SCHEDULE REGARDING CERTAIN PUBLIC WORKS PENALTIES, PERMIT, INSPECTION AND PROCESSING FEES

Resolution No. 3239 – 5/10/01 AMENDING THE CITY FEE SCHEDULE REGARDING AIRPORT FEES TO ESTABLISH FEES AND FEE ADJUSTMENT CRITERIA FOR THROUGH THE FENCE ACCESS

Resolution No. 3401 – 6/14/01 AMENDING THE CITY FEE SCHEDULE REGARDING AIRPORT GROUND LEASE RATES

Resolution No. 3372 – 12/13/01 AMENDING THE CITY FEE SCHEDULE REGARDING PAVEMENT RESTORATION FEES

Resolution No. 3482 – 3/14/02 AMENDING THE CITY FEE SCHEDULE REVISING CERTAIN MANAGEMENT SERVICES, FIRE, AIRPORT, PARKS/RECREATION, PLANNING/DEVELOPMENT, POLICE AND PUBLIC WORKS FEES

Resolution No. 3630 – 5/08/03 AMENDING THE CITY FEE SCHEDULE REVISING CERTAIN MANAGEMENT SERVICES, AIRPORT, REFUSE, PLANNING/DEVELOPMENT, POLICE AND PUBLIC WORKS FEES

Resolution No. 3692 – 11/06/03 AMENDING THE CITY FEE SCHEDULE REVISING PAVEMENT RESTORATION FEES

Resolution No. 3793 – 10/28/04 AMENDING CITY FEE SCHEDULE REVISING AIRPORT FEES

Ordinance No. 3689 – 6/23/05 AMENDING CITY FEE SCHEDULE DELETING REFUSE AND RECYCLING FEES, SECTION 4, AND INCORPORATING THEM INTO CITY CODE CHAPTER 44

Resolution No. 3913 – 11/17/05 AMENDING CITY FEE SCHEDULE REVISING AIRPORT FEES AND ADDING SECTION 2.10 (effective 1/1/2006)

Resolution No. 4035 – 1/11/2007 AMENDING CITY FEE SCHEDULE REVISING MANAGEMENT SERVICES, AIRPORT, PLANNING AND DEVELOPMENT AND POLICE FEES

Resolution No. 4059 – 04/26/2007 AMENDING CITY FEE SCHEDULE ADDING SECTION 4 MUNICIPAL UTILITIES

Resolution No. 4119 – 09/20/2007 AMENDING CITY FEE SCHEDULE SECTION 3
Resolution No. 4145 – 01/17/2008 REPEALED SECTION 5 PARKS AND RECREATION

Resolution No. 4178 – 4/24/2008 AMENDING SECTION 4 MUNICIPAL UTILITIES

Ordinance No. 4104 – 10/30/08 AMENDING SECTION 8, PUBLIC WORKS, REPEALING SEC 8.7 AND SEC 8.15, UTILITIES, MM AND NN EFFECTIVE 11/29/08

Resolution No. 4299 – 5/28/2009 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO FIRE DEPARTMENT, MUNICIPAL UTILITIES, PLANNING AND DEVELOPMENT, POLICE DEPARTMENT AND PUBLIC WORKS FEES

Resolution No. 4311 – 5/13/2009 AMENDING THE CITWIDE FEE SCHEDULE AIRPORT RATES AND FEES

Resolution No. 4318 – 07/30/2009 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO FIRE DEPARTMENT, NEIGHBORHOOD RESOURCES, PLANNING AND DEVELOPMENT, POLICE DEPARTMENT AND PUBLIC WORKS FEES

Resolution No. 4430 – 06/24/2010 AMENDING SECTION 6, PLANNING AND DEVELOPMENT AND SECTION 8 PUBLIC WORKS.

Resolution No. 4483 – 12/09/2010 AMENDING SECTION 7, POLICE DEPARTMENT

Resolution No. 4504 – 04/28/2011 AMENDING SECTION 8, PUBLIC WORKS

Resolution No.4505 – 05/26/2011 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO TRANSPORTATION & DEVELOPMENT – DEVELOPMENT SERVICES AND TRANSPORTATION & DEVELOPMENT – TRANSPORTATION OPERATIONS.

Resolution No. 4535 – 10/27/2011 AMENDING SECTION 7, POLICE DEPARTMENT

Resolution No. 4615 – 07/26/2012 AMENDING SECTION 6.3.3 DELETING SITE DEVELOPMENT - HOME OCCUPATION FEE

Resolution No. 4703 – 08/12/13 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO ADMINISTRATION, MANAGEMENT SERVICES - TAX AND LICENSE, CHANDLER MUNICIPAL AIRPORT, FIRE DEPARTMENT, MUNICIPAL UTILITIES, PARKS AND RECREATION, TRANSPORTATION AND DEVELOPMENT - DEVELOPMENT SERVICES AND OPERATIONS, POLICE DEPARTMENT, AND NEIGHBORHOOD RESOURCES

Resolution No. 4773 – 6/12/14 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO FIRE DEPARTMENT, PARKS AND RECREATION, AND POLICE DEPARTMENT

Resolution No. 4839 – 03/26/2015 MANAGEMENT SERVICES DEPARTMENT, AIRPORT, TRANSPORTATION AND DEVELOPMENT, SOLID WASTE, POLICE, PARKS AND RECEREATION, AND CULTURAL AFFAIRS

Resolution No. 4899 – 11/19/2015 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO MOBILE FOOD

Resolution No. 4941 – 5/12/2016 AMENDING SECTION 2: MUNICIPAL AIRPORT, SECTION 5: PARKS AND RECREATION, SECTION 6: TRANSPORTATION AND DEVELOPMENT, DEVELOPMENT SERVICES

Resolution No. 5034 – 4/13/2017 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO FIRE DEPARTMENT, MANAGEMENT SERVICES, PARKS AND RECREATION, AND TRANSPORTATION AND DEVELOPMENT DEPARTMENTS

Resolution No. 5098 – 12/7/17 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO ADMINISTRATION AND MANAGEMENT SERVICES DEPARTMENT

Resolution No. 5104 – 1/11/18 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO PUBLIC WORKS & UTILITIES DEPARTMENT AND INCORPORATING TECHNICAL CORRECTIONS TO RECOGNIZE REORGANIZATION AND REORDERING SECTIONS.

Resolution No. 5117 – 4/26/2018 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO COMMUNITY SERVICES, PUBLIC SAFETY - FIRE AND POLICE, AND PUBLIC WORKS & UTILITIES DEPARTMENTS.

Resolution No. 5215 – 12/13/2018 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO THE MANAGEMENT SERVICES AND DEVELOPMENT SERVICES DEPARTMENTS.

Resolution No. 5243 – 05/09/2019 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO THE COMMUNITY SERVICES, DEVELOPMENT SERVICES, AND PUBLIC WORKS & UTILITIES DEPARTMENTS.

Resolution No. 5300 – 12/12/2019 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO ADMINISTRATION AND MANAGEMENT SERVICES AND PUBLIC WORKS & UTILITIES DEPARTMENTS.

RESOLUTION NO. 5431 – 2/25/2021 AMENDING THE CITYWIDE FEE SCHEDULE RELATING TO THE AIRPORT, COMMUNITY SERVICES, DEVELOPMENT SERVICES, CULTURAL DEVELOPMENT, FIRE AND NEIGHBORHOOD RESOURCES DEPARTMENTS OR DIVISIONS.

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Public Safety- Effective March 1, 2021							
Fire							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: New to be inserted as 6.1.15 (j) **City Code:** **Ch. 27-8**	N/A	Paramedic Program Student Registration	Registration fee for other municipalities to send their staff to attend the Chandler Fire Department Paramedic Program. This includes Phoenix, Scottsdale, Glendale, Mesa, Apache Junction, Queen Creek, etc.	N/A	$6,000 per student per class - Only offered to other agencies/municipalities	Fee serves as offset for the costs associated with running the Paramedic Program. This includes skills/scenario hours $3,442, books/online access $1,348, certifications $255, NREMT CBT fee $125, clinical website fee $100, and misc. EMS supplies/equipment $730. The registration is priced at fair market value (based on 100%+ cost recovery of all additional costs associated with these students).	Only PHX is accredited so far to offer the training, and they currently do not allow outside agencies into their training classes. The only current alts are the Comm College district trainings. **Phoenix**: No comparable offering **Mesa**: No comparable offering **Scottsdale**: No comparable offering **Gilbert**: No comparable offering **Mesa Community College**: $6,807 **Glendale Community College**: $6,115 **Central AZ College:** $6,707 **Phx. College:** $6,575
Development Services- Effective July 1, 2021							
Planning							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: New to be inserted as 4.1.3 (c) **City Code:** **Ch. 35**	N/A	Historic Preservation Neighborhood Application	Neighborhoods who wish to be part of a Historic Preservation District with a Zoning Overlay.	Currently must go through normal zoning process including paying the $785 fee plus $40/acre charge. Removes the historic preservation component from the normal re-zoning schedule.	$100 - per Application	Fee covers the rezoning process which preserves properties, districts and sites that represent Chandler's historic, architectural and cultural heritage and promotes neighborhood preservation and revitalization.	**Phoenix**: $870 plus $25 per acre or portion thereof **Mesa**: No fee **Scottsdale**: No fee **Gilbert**: No comparable program
City Wide Fee Schedule Reference: New to be inserted as 4.1.3 (d) **City Code:** **Ch. 35**	N/A	Resident/Home addition of Historic Preservation Overlay Application	Residents who wish to participate and contribute property into an existing Historic Preservation District.	Currently must go through normal zoning process and pay the $785 fee plus $40/acre charge. Removes the historic preservation component from the normal re-zoning schedule.	$50 - Per Application	Fee covers the rezoning process which preserves properties, districts and sites that represent Chandler's historic, architectural and cultural heritage and promotes neighborhood preservation and revitalization. Reflects City Council adoption of Historic Preservation ordinance on 11/2/20	**Phoenix:** $870 plus $25 per acre or portion thereof **Mesa:** No fee **Scottsdale:** No fee **Gilbert:** No comparable program

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Cultural Development- Effective July 1, 2021							
Museum							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: Remove from 3.3 (a) **City Code: Ch. 31**	Agave Room*	Delete	Customers who wish to rent space at the museum.	$85/hr. - Resident $115/hr. - Non Resident $128/hr. - Commercial	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (b) **City Code: Ch. 31**	Saguaro Room*	Delete	Customers who wish to rent space at the museum.	$125/hr. - Resident $169/hr. - Non Resident $188/hr. - Commercial	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (c) **City Code: Ch. 31**	The Living Room*	Delete	Customers who wish to rent space at the museum.	$125/hr. - Resident $169/hr. - Non Resident $188/hr. - Commercial	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (d) **City Code: Ch. 31**	Sunken or Historic Courtyard*	Delete	Customers who wish to rent space at the museum.	$40/hr. - Resident $54/hr. - Non Resident $68/hr. - Commercial	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (e) **City Code: Ch. 31**	Set-Up Fee for Room Reservations	Delete	Customers who wish to rent space at the museum.	$25/hr. - Resident $34/hr. - Non Resident $38/hr. -Commercial	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (f) **City Code: Ch. 31**	Merchandise	Delete	Customers who wish to rent space at the museum.	Cost of Goods + 50% markup = Retail Price	None	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A
City Wide Fee Schedule Reference: Remove from 3.3 (*) **City Code: Ch. 31**	*Chandler Non-Profit Groups	Delete	Customers who wish to rent space at the museum.	Rate - 50%, per hr./event day	Delete	Museum rental fees will continue to be charged, but by the Museum Foundation at market rate. The Foundation will also pay the cost of Janitorial and related staffing through Devau.	N/A

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Community Services- Effective July 1, 2021							
Recreation							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: New to be inserted as 3.1.2 (n) **City Code:** **Ch. 31**	N/A	Mini Field Preparations	Customers who wish to have mini preparations between games.	As there is currently no Mini Field Prep offered, most are foregoing additional prep, but when they do opt for the prep are paying full prep rates of $25, $34, or $38.	$21/prep - resident $29/prep - non-resident $32/prep - commercial	Currently the only option is a full prep of the field at $25 per hour for residents, $34 per hour for non-residents, and $38 per hour for commercial. This fee is to accommodate quick drags and watering of diamond fields between games. Fees will help cover the cost of having staff available to complete the preparations. Field preparation services were requested by tournament producers.	**Phoenix**: None **Mesa**: None **Scottsdale:** None **Gilbert**: None
Aquatics							
City Wide Fee Schedule Reference: 3.1.1 (p) **City Code:** **Ch. 31**	Swim Team Use (per Guard)	N/A	Swim Teams who wish to rent space at one of the five Aquatics Centers with regulation lane space.	$15/hr.	$20/hr.	The $20/hour is to fully cover the staffing cost to host these activities. Staff costs can run between $14 and $17 per hour not including for the time that staff have to check and verify the safety of the facility or the time that groups are leaving the facility. Current Utilization is 2,300 hours.	**Phoenix**: No comparable offering **Mesa**: $24/hour for 8 lanes **Scottsdale**: $4/hour/lane, $32/hour for 8 lanes (must additionally pay $35/hour if not already open to the public) **Gilbert**: No comparable offering **Tempe:** $4-$8/hour/lane $30-$70/hour for 8 lanes (does not include Lifeguard fee) **Glendale:** $84/hour for 6 lanes (includes 2 lifeguards)
City Wide Fee Schedule Reference: 3.1.1 (q) **City Code:** **Ch. 31**	Lifeguard	N/A	Customers who wish to rent private party reservations	$15/hr.	$20/hr.	The $20/hour is to fully cover the staffing cost to host these activities. Staff costs can run between $14 and $17 per hour. The fee will cover a portion of the overhead operating costs. The number of lifeguards needed is based on the facility and attendance of any private rental. Current utilization is 5,400 hours.	**Phoenix**: $15/hour **Mesa**: $25/hour **Scottsdale**: $35/hour **Gilbert**: $20/hour

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Community Services- Effective July 1, 2021							
Aquatics							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: Remove from 3.1.1 (e) **City Code:** **Ch. 31**	Pool Pass - Youth (5 punches)	Delete	Residents wishing to buy bulk swim passes	$2.50/ea.	None	This pass is providing 50% off the regular admission price when purchased in bulk with just purchasing 5 admissions, the administration costs of selling this pass and the loss of revenue on already highly reduced admission rates make this pass unfeasible. We are recommending changing passes to 15 punches (25% discount) and 30 Punches (50% discount) to incentivize bulk purchase of passes.	**Phoenix**: No comparable fee **Mesa**: 10 punch for $15 **Scottsdale**: 10 punch for $20 **Gilbert**: 30 for $25
City Wide Fee Schedule Reference: Remove from 3.1.1 (f) **City Code:** **Ch. 31**	Pool Pass - Adult (5 punches)	Delete	Residents wishing to buy bulk swim passes	$7.50/ea.	None	This pass is providing 50% off the regular admission price when purchased in bulk with just purchasing 5 admissions, the administration costs of selling this pass and the loss of revenue on already highly reduced admission rates make this pass unfeasible. We are recommending changing passes to 15 punches (25% discount) and 30 Punches (50% discount) to incentivize bulk purchase of passes.	**Phoenix**: No comparable fee **Mesa**: 5 for $15 **Scottsdale**: 10 for $30 **Gilbert**: 10 for $25
City Wide Fee Schedule Reference: 3.1.1 (g) **City Code:** **Ch. 31**	Pool Pass - Youth (20 punches)	Pool Pass - Youth (15 punches)	Residents wishing to pre purchase bulk public swimming admissions	$10.00	25% discount of the normal entry fee. (Currently equates to $11.25)	Incentivizes the bulk purchasing of passes at a scaled rate. A 15-punch card would provide a 25% discount while a 30 punch would provide a 50% (already existing) discount.	**Phoenix**: No comparable fee **Mesa**: 10 punch for $15 **Scottsdale**: 10 punch for $20 **Gilbert**: 30 for $25
City Wide Fee Schedule Reference: 3.1.1 (h) **City Code:**	Pool Pass - Adult (20 punches)	Pool Pass - Adult (15 punches)	Residents wishing to pre purchase bulk public swimming admissions	$30.00	25% discount of the normal entry fee rounded to nearest 1/4 dollar (currently equates to $25.50)	Incentivizes the bulk purchasing of passes at a scaled rate. A 15-punch card would provide a 25% discount while a 30 punch would provide a 50% (already existing) discount.	**Phoenix**: No comparable fee **Mesa**: 5 for $15 **Scottsdale**: 10 for $30 **Gilbert**: 10 for $25

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Community Services- Effective July 1, 2021							
Aquatics							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: 3.1.1 (i) **City Code:**	Pool Pass - Youth (30 punches)	Pool Pass - Youth (30 punches)	Residents wishing to pre purchase bulk public swimming admissions	$15	50% discount of the normal entry fee rounded to nearest 1/4 dollar. (Would not change the current fee, only fee reference)	Incentivizes the bulk purchasing of passes at a scaled rate. A 15 punch card would provide a 25% discount while a 30 punch would provide a 50% (already existing) discount.	**Phoenix**: No comparable fee **Mesa**: 5 for $15 **Scottsdale**: 10 for $30 **Gilbert**: 10 for $25
City Wide Fee Schedule Reference: 3.1.1 (j) **City Code:**	Pool Pass - Adult (30 punches)	Pool Pass - Adult (30 punches)	Residents wishing to pre purchase bulk public swimming admissions	$45	50% discount of to normal entry fee rounded to nearest 1/4 dollar. (Currently equates to $33.75)	Incentives the bulk purchasing of passes at a scaled rate. A 15 punch card would provide a 25% discount while and 30 punch would provide a 50% discount. A 30 punch pass already exists for youth at the correct rate.	**Phoenix**: No comparable fee **Mesa**: 5 for $15 **Scottsdale**: 10 for $30 **Gilbert**: 10 for $25
Neighborhood Resources- Effective July 1, 2021							
Code Enforcement							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: 5.1 **City Code:** **Ch. 30-14**	First non-compliance re-inspection fee	Delete	Property owners	$50	None	More efficient and appropriate method of recouping inspection and other incidental costs in connection with the process of abating nuisance properties. Reflects City Code changes tentatively adopted by City Council on 12/10/20.	**Phoenix**: N/A **Mesa**: N/A **Scottsdale**: N/A **Gilbert**: N/A
City Wide Fee Schedule Reference: 5.1 **City Code:** **Ch. 30-14**	Subsequent re-inspection w/continued non-compliance fee(s).	Delete	Property owners	$75	None	More efficient and appropriate method of recouping inspection and other incidental costs in connection with the process of abating nuisance properties. Reflects City Code changes tentatively adopted by City Council on 12/10/20.	**Phoenix**: N/A **Mesa**: N/A **Scottsdale**: N/A **Gilbert**: N/A

City of Chandler
Summary of Proposed New or Modified Fees
General Fund

City Code and Fee Schedule Reference	Current Fee Description	New Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
Neighborhood Resources- Effective July 1, 2021							
Code Enforcement							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: 5.1 **City Code:** **Ch. 30-14**	Abatement Administrative Fee	Abatement Administrative Fee	Property owners	$150	25% of contractor cost	More efficient and appropriate method of recouping inspection and other incidental costs in connection with the process of abating nuisance properties. Reflects City Code changes tentatively adopted by City Council on 12/10/20.	**Phoenix**: N/A **Mesa**: N/A **Scottsdale**: N/A **Gilbert**: N/A
City Wide Fee Schedule Reference: 5.1 **City Code:** **Ch. 30-14**	N/A	Demolition Abatement Administrative Fees	Property owners	None	25% of demolition contractor cost	Ability to recoup inspection and other incidental costs in connection with the process demolishing an unsafe structures. Reflects City Code changes tentatively adopted by City Council on 12/10/20.	**Phoenix**: N/A **Mesa**: N/A **Scottsdale**: N/A **Gilbert**: N/A

City of Chandler
Summary of Proposed New or Modified Fees
Non-General Fund

City Code and Fee Schedule Reference	Current Fee Description	New or Deleted Fee Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
City Manager- Effective March 1, 2021							
Airport							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: 2.9 **City Code:** **Ch. 8**	City Owned, Aviation Fuel Services, Retail Prices	N/A	General Public	The City's retail price is calculated by first determining the Minimum and Maximum Prices. The Minimum Retail Fuel Price is determined by: dividing the annual cost of providing self-serve fueling services by the number of gallons sold to establish a base cost. To that price, the following is added: the current Retail Fuel Flowage Fee per gallon, the sum of the wholesale cost of the fuel (including all related fees), the sum of the federal and state fuel excise taxes, and county/local privilege taxes. The Maximum Retail Fuel Price is determined by obtaining the current advertised aviation self-serve fuel prices for the Phoenix metropolitan area. The second highest fuel price is determined from all currently advertised fuel prices and $0.05 is added. The Final Fuel Price is then set between the Minimum and Maximum Prices.	The retail price of aviation fuel shall be determined by a "cost-plus" formula based upon the wholesale price of the fuel inventory plus an amount not less than eighty ($0.80) cents per gallon, inclusive of applicable federal, state, and local fees and taxes.	Price calculation restructuring makes the City fuel sales more competitive in the local market, avoiding stranded inventory, and increasing revenue, thereby lessening dependence upon on General Fund subsidies.	**N/A - highly variable commodity**
City Wide Fee Schedule Reference: 2.10 **City Code:** **Ch. 8**	Airport Hourly Fee	N/A	General Public	For exclusive use of staff time on activity not associated with normal airport operations and maintenance of the facility. (a) Regular Staff Charges Actual time rounded up to nearest .25 hour (Res. 4703) $42.00/hr. (b) Overtime/Call Out Staff Charges Actual time rounded up to nearest .25 hour (Res. 4703) $64.00/hr.	For exclusive use of staff time on activity not associated with normal airport operations and maintenance of the facility. (a) Regular Staff Charges During Posted Business Hours Actual time rounded up to nearest .25 hour, $45.00/hr. (b) Overtime/Call Out Staff Charges Outside of Posted Business Hours (2-hour minimum charge) Actual time rounded up to nearest .25 hour, $68.00/hr.	We currently pay staff a minimum of 2 hours when called out, but do not charge in kind if the service is under 2 hours. Cost recovery necessitates the amendment.	**Deer Valley:** $75/hour/person **Gateway:** $66/hour + taxes for Airfield Operations or Maintenance Specialist **Casa Grande:** $150 1-2 hours, $75/hour thereafter **Avra Valley (Marana):** $125.00 **Prescott:** $122.00 **Winslow:** $300.00
City Wide Fee Schedule Reference: 2.11 (b) **City Code:** **Ch. 8**	Security Fee	N/A	Airport Tenants	Hangar Key/Access Card/Device Replacement Fee (per each replacement) $35.00	Hangar Lock/Access Card/Device Replacement Fee (per each replacement) $35.00 or actual cost of replacement, whichever is higher	Keys are no longer provided to tenants in the City Hangars, only to a small number of storage units. Instead, locks are interlaced on hangar doors; one city lock with another provided by the tenant. In the event a lock is damaged, we often see higher cost than $35 to replace. Cost recovery necessitates this amendment.	**Mesa**: $40.00 **Prescott:** $75.00 **Scottsdale:** $20.00
City Wide Fee Schedule Reference: New to be inserted as 2.2 (c) **City Code:** **Ch. 8**	N/A	Other Hangars	General Public	N/A	Hangars may be rented daily, monthly, or annually at the following minimum rates: $0.10/Sq. Ft/Day, $0.33/Sq. Ft/Month, and $4/Sq. Ft/Year	No fees currently exist for short-term rental agreements, or for any hangars other than City-owned T-Hangars.	**Deer Valley:** No Comparable Rates **Gateway:** $1.00/sq-ft/month + tax $0.07/sq-ft/day + tax **Casa Grande**: $20/night T-Shades $25/night Hanger **Sierra Vista**: $38/day and $114/week **San Manuel**: $10/day T-shades **Buckeye**: $75/month common hangar

City of Chandler
Summary of Proposed New or Modified Fees
Non-General Fund

City Code and Fee Schedule Reference	Current Fee Description	New or Deleted Fee Description	Customer Impacted	Existing Fee	Proposed Fee	Justification/Cost Basis	Comparisons
City Manager- Effective March 1, 2021							
Airport							**Other City Fee Ranges:**
City Wide Fee Schedule Reference: New 2.2 (d) **City Code:** **Ch. 8**	N/A	Hangar Cleaning Fee	Airport Tenants	N/A	Retention of the Hangar Deposit ($150) and staff hourly rates to any hangar not maintained per Section 16 of the Chandler Municipal Airport Aircraft Hangar Storage Agreement.	Currently, hangar deposits are applied to the first month's rent. This deposit should be retained as security against staff time to clean hangars upon lease termination for cost recovery.	**Mesa:** $272/hangar No other airports have this fee outside of lease specified language
City Wide Fee Schedule Reference: 2.13 **City Code:** **Ch. 8**	N/A	Office Leases	General Public	N/A	Aviation Use (Non-prime) Negotiable (Negotiable based $9.50/Sq. Ft/Yr. minimum, plus consideration of appraisal and comps); Aviation Use (Prime) Negotiable (Negotiable based $22/Sq. Ft/Yr. minimum, plus consideration of appraisal and comps. One-year terms.	Fees not present in existing Fee Schedule and would apply to multiple Airport facilities in the near and short term.	**Rates negotiable**

City of Chandler
Summary of Proposed New or Modified Fees- Technical Corrections
No Impact to Fees

City Code and Fee Schedule Reference	Current Fee Description	New Fee Description	Existing Fee	Proposed Fee	Justification/Cost Basis
Management Services					
Administration and Management Services					
City Wide Fee Schedule Reference: 1.1 (a) vi **City Code:**	Non-Sufficient Fund (NSF) fee	Dishonored or Non-Sufficient Fund (NSF) fee	$25.00	$25.00	To update fee description
Airport					
Hangar					
City Wide Fee Schedule Reference: 2.2 **City Code:** **Ch. 8**	Hangers	Hangars	N/A	N/A	To update fee description
Tie Down Spaces					
City Wide Fee Schedule Reference: 2.4 (a) **City Code:** **Ch. 8**	Single-Engine & Helicopter, less than 2,500 lbs., monthly fee, $50.00	Single-Engine Piston Aircraft & Helicopter, less than 2,500 lbs. MTOW, monthly fee, $50.00	N/A	N/A	Reclassifies aircraft type weights due to changes in the national fleet mix, and clarifies weight as Maximum Takeoff Weight (MTOW).
City Wide Fee Schedule Reference: 2.4 (b) **City Code:** **Ch. 8**	Multi-Engine & Helicopter, 2,500 to 7,000 lbs., monthly fee, $68	Multi-Engine Piston Aircraft & Helicopter, 2,500 to 5,000 lbs. MTOW, monthly fee, $68	N/A	N/A	Reclassifies aircraft type weights due to changes in the national fleet mix, and clarifies weight as Maximum Takeoff Weight (MTOW).

City of Chandler
Summary of Proposed New or Modified Fees- Technical Corrections
No Impact to Fees

City Code and Fee Schedule Reference	Current Fee Description	New Fee Description	Existing Fee	Proposed Fee	Justification/Cost Basis
Airport					
Hangar					
City Wide Fee Schedule Reference: 2.4 (c) **City Code: Ch. 8**	Turbine Engine & Helicopter, over 7,000 lbs., monthly fee, $138	Turbine Engine over 5,000 lbs. MTOW & Helicopter, over 2,500 lbs. MTOW, monthly fee, $138	N/A	N/A	Reclassifies aircraft type weights due to changes in the national fleet mix, and clarifies weight as Maximum Takeoff Weight (MTOW).
Transient or Overnight Parking					
City Wide Fee Schedule Reference: 2.5 (b) **City Code: Ch. 8**	Multi-Engine & Helicopter, 2,500 to 7,000 lbs.	Multi-Engine & Helicopter, 2,500 to 5,000 lbs. MTOW	N/A	N/A	Reclassifies aircraft type weights due to changes in the national fleet mix, and clarifies weight as Maximum Takeoff Weight (MTOW).
City Wide Fee Schedule Reference: 2.5 (c) **City Code: Ch. 8**	Turbine Engine & Helicopter, over 7,000 lbs.	Turbine Engine & Helicopter, over 5,000 lbs. MTOW	N/A	N/A	Reclassifies aircraft type weights due to changes in the national fleet mix, and clarifies weight as Maximum Takeoff Weight (MTOW).
Community Services					
Aquatics					
City Wide Fee Schedule Reference: 3.1.2 (m) **City Code: Ch. 31**	Ball Field Preparation	Field Preparation	$25/hr. - resident $34/hr. - non-resident $38/hr. - commercial	$25/prep - resident $34/prep - non-resident $38/prep - commercial	To update the fee description and change the distinction from hour to prep since a full prep is completed in an hour for consistency.
City Wide Fee Schedule Reference: 3.1.2 (m) **City Code: Ch. 31**	Ball Field Preparation	Field Preparation After-Hour	$35/hr. - resident $48/hr. - non-resident $53/hr. - commercial	$35/prep - resident $48/prep - non-resident $53/prep - commercial	To update the fee description and change the distinction from hour to prep since a full prep is completed in an hour for consistency.

WEB POSTING OF NEW OR MODIFIED FEES
DATED DECEMBER 23, 2020

The City of Chandler is considering new or modified fees. The fee changes are proposed for the Airport, Community Services, Development Services, Cultural Development, Fire, and Neighborhood Resources departments or divisions.

First, the City Manager Department/Airport Division is proposing changes to the "City Owned, Aviation Fuel Services, Retail Prices", "Airport Hourly Fee", and "Security Fee", and adding "Other Hangers", "Hangar Cleaning Fee" and an "Office Leases" fee. The changes and fees are proposed to be effective March 1, 2021.

Second, the Fire Department is proposing to add a $6,000 "Paramedic Program Student Registration" fee to accommodate other municipality/agency staff participating in the program. This fee is proposed to be effective March 1, 2021.

Third, the Development Services Department/Planning Division is proposing a "Historic Preservation Neighborhood Application" fee. The application fee will be for both neighborhoods and residents. This reflects City Council adoption of the Historic Preservation ordinance on November 2,2020. The proposed fees would be effective July 1, 2021.

Fourth, the Cultural Development Department/Museum Division is proposing to remove current museum room rental fees. In cooperation with the Museum Foundation, the Foundation will manage the rentals and fees collected going forward. The proposed fee removal would be effective July 1, 2021.

Fifth, the Community Services Department/Recreation Division is proposing a new "Mini Field Preparations" fee option. The Aquatics Division is proposing "Swim Team Use (per Guard)" and "Lifeguard" fee changes, and changes to pool pass options for both youth and adults and the associated fees. The proposed changes would be effective July 1, 2021.

Sixth, the Neighborhood Resources Department/Code Enforcement Division is proposing the removal of the "First non-compliance re-inspection fee" and "Subsequent re-inspection with continued non-compliance" fee, and replacing these with an "Abatement Administrative Fee" and "Demolition Abatement Administrative Fees". These changes would reflect the City Code changes tentatively adopted by City Council on December 10, 2020. The proposed fees would be effective July 1, 2021.

We have provided a link to these details in the Summary of Proposed New or Modified Fees that will be considered at the Regular Meeting of the Chandler City Council being held in the Council Chambers, 88 E. Chicago Street, on Thursday, February 25, 2021, at 6:00 p.m. The proposed fees are being posted 60 days prior to consideration at the public meeting, to allow time for citizen review and comment. After City Council action, any approved fees charged by the Airport and/or Fire would be anticipated to be effective March 1, 2021 with any remaining fees effective July 1, 2021.

Posting date: 12/23/2020
Attachment 3

CITY OF CHANDLER
NOTICE OF INTENTION TO AMEND THE
CITYWIDE FEE SCHEDULE

NOTICE IS HEREBY GIVEN THAT at a Regular Meeting of the Chandler City Council to be held in the Council Chambers, 88 E. Chicago Street, on Thursday, February 25, 2021, at 6:00 p.m., it is the City Council's intention to amend the Citywide Fee Schedule, for the Airport, Community Services, Development Services, Cultural Development, Fire, and Neighborhood Resources, which for the Airport and Fire, fees will be effective March 1, 2021, with the remaining fees effective July 1, 2021. This Council agenda item will appear as an action item to allow an opportunity for public comment.

A copy of the document supporting the proposed new and modified fees is available in the office of the City Clerk and on the City's website.