



**CITY OF AUSTIN
Capital Delivery Services**

**PROJECT MANUAL
Contract Documents and Technical Specifications**

VOLUME 1 of 4

**Hornsby Bend Biosolids Management Plant
Headworks Improvements**

**C.I.P. PROJECT NUMBER: 3164.075
SOLICITATION NUMBER: CLMC1170**

**CITY OF AUSTIN
Austin Water
PO Box 1088
Austin, Texas 78767**

*The City of Austin is committed to compliance with the Americans with Disabilities Act.
Reasonable modifications and equal access to communications will be provided upon request.*

Document Number	Date	Title
----------------------------	-------------	--------------

VOLUME 1

		Cover Sheet
	06/01/2026	Table of Contents
	03/13/2026	Seal Sheets (Volume 1 only)

BIDDING REQUIREMENTS, CONTRACT FORMS, & CONDITIONS OF THE CONTRACT

00020	09/21/2023	Invitation for Bids
00100	09/21/2023	Instructions to Bidders
00220	03/30/2018	Geotechnical Data
00220	10/18/2018	Geotechnical Data – Final Report
00300	09/01/2021	Lump Sum Bid Form
	04/03/2020	Total Bid Form
00400	10/10/2022	Statement of Bidder’s Experience
00405	03/30/2018	Certificate of Non-Suspension or Debarment
00410	01/12/2026	Statement of Bidder’s Safety Experience
00440	09/01/2025	Prohibited Activities
00500	02/04/2020	Agreement (SAMPLE)
00610	02/04/2020	Performance Bond
00620	02/04/2020	Payment Bond
00630	10/22/2019	Non-Discrimination and Non-Retaliation Certificate
00631	03/30/2018	Title VI Assurances Appendix A
00632	03/30/2018	Title VI Assurances Appendix E
00650	06/08/2018	Certificate of Insurance
00670	01/11/2019	Sales Tax Exemption Certificate
00680	03/30/2018	Non-Use of Asbestos Affidavit (Prior to Construction)
00681	03/30/2018	Non-Use of Asbestos Affidavit (After Construction)
00700	10/03/2025	General Conditions
00810	02/08/2023	Supplemental General Conditions
00819	03/07/2017	Security Requirements
SP1070	10/24/2019	Facility Security Procedure for Contractors
00830	10/01/2025	Wage Rates and Payroll Reporting
00830BC	06/01/2026	Wage Rates Building Construction Trades
00830HH	01/12/2026	Wage Rates Highway Heavy
0830WT	10/01/2023	Wage Rates and Payroll Reporting
00840	05/30/2025	Construction Training Program Requirements
00900	05/10/2021	Addendum (SAMPLE)

SPECIFICATIONS

Division 1 - General Requirements

01010	08/28/2020	Summary of Work
01015	03/05/2026	Construction Coordination and Sequencing
01020	03/30/18	Allowances
01025	09/19/2023	Measurement, Payment, and Schedule of Values
01030	03/30/18	Alternates
01050	10/19/15	Grades Lines & Levels
01095	07/21/03	Reference Standards and Definitions
01200	05/06/2022	Project Meetings
01300	05/06/2022	Submittals
01300.1	06/11/2024	Deviation Request Form
01300.2	06/11/2024	Sample Marked-Up Specification
01300.3	06/11/2024	Sample Transmittal Form
01300.4	06/11/2024	Administratively Complete – Submittal Checklist
01300.5	06/11/2024	Administratively Complete – O&M Checklist
01352	06/29/18	Sustainable Construction Requirements
01353	04/29/2020	Construction Equipment Emissions Reduction Plan
01380	04/14/2023	Construction Photography & Videos
01500	05/09/2025	Temporary Facilities
01505	08/12/19	Construction and Demolition Waste Management
01510	06/29/18	Construction Indoor Air Quality Management Plan
01550	08/09/12	Public Safety and Convenience
01650	04/17/26	Equipment Testing and Facilities Startup
01670	04/30/14	Austin Water Training Requirements
01670A	04/30/14	Training Summary
01710	12/19/11	Final Cleaning
01730	03/31/14	Operation and Maintenance Data
01900	03/12/12	Prohibition of Asbestos Containing Materials
01900a	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A Prior to Design)
01900b	06/05/06	Statement of Non-Inclusion of Asbestos Containing Material (E/A After Design)
01901	06/11/2024	Contaminated Soil and Groundwater

VOLUME 2

	Cover Sheet
06/01/2026	Table of Contents

City Standard Technical Specifications

Series 100 – Earthwork

101S	03/25/2021	Preparing Right-of-Way
104S	09/26/2012	Removing Portland Cement Concrete
111S	09/26/2012	Excavation
130S	09/26/2012	Borrow

Series 200 – Subgrade and Base Construction

201S	06/17/2021	Subgrade Preparation
210S	02/24/2010	Flexible Base

Series 300 – Street Surface Courses

312S	09/26/2012	Seal Coat
------	------------	-----------

Series 400 – Concrete and Structures

401S	09/26/2012	Structural Excavation and Backfill
402	09/13/2022	Controlled Low Strength Material
403	04/14/2025	Concrete for Structures
405	09/13/2022	Concrete Admixtures
406S	09/26/2012	Reinforcing Steel
408S	11/13/2007	Concrete Joint Materials
409S	11/13/2007	Membrane Curing
410S	09/14/2021	Concrete Structures
411S	11/13/2007	Surface Finishes for Concrete
413S	11/13/2007	Cleaning and/or Sealing Joints and Cracks (PC Concrete)
416S	11/13/2007	Waterstops
430S	11/15/2011	P.C. Concrete Curb and Gutter
439S	11/13/2007	Parking Lot Bumper Curbs

Series 500 – Pipe and Appurtenances

506	02/22/2021	Manholes
508S	02/24/2010	Miscellaneous Structures and Appurtenances
509S	09/26/2012	Excavation Safety Systems
510	06/02/2025	Pipe
511	03/10/2025	Water Valves

Series 600 – Environmental Enhancement

604S	06/17/2021	Seeding for Erosion Control
628S	12/31/2013	Sediment Containment Dikes
633S	11/26/2001	Landgrading
641S	03/25/2021	Stabilized Construction Entrance
642S	09/01/2011	Silt Fence
648S	03/01/2022	Mulch Sock

Series 700 – Incidental Construction

700S	09/26/2012	Mobilization
720S	09/26/2012	Metal for Structures
721S	09/26/2012	Steel Structures
723	09/26/2012	Structural Welding

Series 800 – Urban Transportation

802S	09/14/2021	Project Signs
860S	09/26/2012	Pavement Marking Paint

Special Provisions to City Standard Technical Specifications

SP401S	06/26/2025	Structural Excavation and Backfill
SP403	06/26/2025	Concrete for Structures
SP406S	06/26/2025	Reinforcing Steel
SP410S	06/26/2025	Concrete Structures
SP506	02/20/2026	Manholes
SP510	04/08/2026	Pipe
SP720S	06/26/2025	Metal For Structures
SP16120	06/11/2024	480 V Motor Control Center
SP16200	06/11/2024	Wires, Conductors and Cable – 600V and Below
SP16210	06/11/2024	Emergency Generator Set
SP16460	06/11/2024	Dry Type Transformers – 600 Volts and Below
SP16550	06/11/2024	Grounding
SP17000	06/11/2024	Process Instrumentation and Control System
SP17200	03/04/2026	Instrument and Control Cabinets and Associated Equipment
SP17370	06/11/2024	Mechanically Activated Level Switches
SP17600	06/11/2024	Programmable Logic Controllers (PLCs) and Operator Interface Units (OIUs)
SP17620	06/11/2024	Fiber Optic & Ethernet Communication Equipment
SP17640	06/11/2024	Workstations & Laptops

VOLUME 3

		Cover Sheet
	06/01/2026	Table of Contents

**Special Specifications
Division 2 – Site Work**

02316	06/26/2025	Geofoam Fill
02732	06/26/2025	Selective Demolition

Division 3 – Concrete

03600	06/26/2025	Grout
03740	06/26/2025	Concrete Repair and Modifications

Division 4 – Masonry

04200	06/26/2025	Concrete Unit Masonry
-------	------------	-----------------------

Division 5 – Metals

05051	06/26/2025	Anchor Bolts
05311	06/26/2025	Steel Decking
05500	06/26/2025	Miscellaneous Metal Fabrications
05521	06/26/2025	Metal Railings

Table of Contents

05530	06/26/2025	Metal Gratings and Cover Plates
05540	06/26/2025	Metal Ladders, Platforms & Stairs

Division 6 – Wood and Plastics

06100	06/26/2025	Rough Carpentry
-------	------------	-----------------

Division 7 – Thermal and Moisture Protection

07115	06/26/2025	Bituminous Dampproofing
07211	06/26/2025	Foamed in Place Insulation
07620	06/26/2025	Sheet Metal Flashing and Trim
07920	06/26/2025	Joint Sealants

Division 8 – Doors and Windows

08100	06/26/2025	Hollow Metal Doors and Frames
08161	06/26/2025	Fiberglass Doors
08330	06/26/2025	Rolling Service Doors
08700	06/26/2025	Door Hardware

Division 9 – Finishes

09220	06/26/2025	Portland Cement Plastering
09911	06/26/2025	Exterior Architectural Painting
09912	06/26/2025	Interior Architectural Painting
09960	03/05/2026	Protective Coatings

Division 10 – Specialties

10400	06/26/2025	Signage
10440	06/26/2025	Fire Protection Specialties

Division 11 – Equipment

11000	06/26/2025	Water and Wastewater Equipment General Provisions
11100	06/26/2025	Common Work Results for Liquid Handling Units
11280	06/26/2025	Fabricated Stainless Steel Slide Gates
11281	06/26/2025	Stainless Steel Weir Gates
11313	06/26/2025	Pumping Unit Testing
11314	06/26/2025	Submersible Sump Pumps
11315	03/13/2026	Screw Centrifugal Pumps
11335	06/26/2025	Chain and Rake Bar Screen and Screenings Washing and Compacting Equipment
11340	03/05/2026	Biotrickling Filter Odor Control System

Division 12 – Furnishings, Division 13 – Special Construction, Division 14 – Conveying Systems

Not Used

Division 15 – Mechanical

15047	06/26/2025	Mechanical Identification
15115	06/26/2025	Specialty Valves
15116	06/26/2025	Plug Valves
15119	06/26/2025	Check Valves
15120	06/26/2025	Common Work Results for Process Interconnections
15140	06/26/2025	Hangers and Supports for Process Piping
15152	06/26/2025	Stop Logs
15204	06/26/2025	Electric Actuators for Valves and Gates
15256	06/26/2025	Process Piping Insulation and Heat Tracing
15257	08/25/2022	Cleaning, Descaling and Passivation Treatments for Stainless Steel Materials
15500	03/13/2026	HVAC – General Provisions
15503	03/13/2026	HVAC – Demolition
15520	03/13/2026	HVAC – Identification
15550	03/13/2026	HVAC – Unit Heaters
15856	03/13/2026	HVAC – Air Filtration Units
15857	03/13/2026	HVAC – Small Split Air-Conditioning (AC) Systems
15860	03/13/2026	HVAC – Standard Fans
15861	03/13/2026	HVAC – Odor Control Fans
15890	03/13/2026	HVAC – Metal Ductwork and Accessories
15891	03/13/2026	HVAC – Non-Metal Ductwork and Accessories
15895	03/13/2026	HVAC – Insulation
15950	03/13/2026	HVAC – Controls
15990	03/13/2026	HVAC – Testing, Adjusting and Balancing

Division 16 – Electrical

16010	08/22/2016	Electrical General Provisions
16011	09/30/2015	Identifications
16012	08/22/2016	Power Systems Study and Arc Flash
16030	06/26/2025	Selective Demolition for Electrical
16040	06/26/2025	NEMA Frame Induction Motors, 600V and Below
16060	06/26/2025	Acceptance Testing and Calibration
16120	08/22/2016	480 V Motor Control Center
16130	09/30/2015	Boxes and Cabinets
16140	09/30/2015	Wiring Devices
16150	10/24/2016	Raceways, Fittings, and Supports
16191	10/24/2016	Miscellaneous Equipment
16200	09/30/2015	Wires, Conductors, and Cable - 600V and Below
16205	09/30/2015	Wire and Cable Tagging
16250	06/26/2025	Lighting
16301	06/26/2025	480V Generator Docking System
16400	08/22/2016	Surge Protection Devices
16430	06/26/2025	Low Voltage Switchgear
16440	08/22/2016	Disconnect Switches and Enclosed Circuit Breakers
16441	06/26/2025	Switchboards
16441.10	06/26/2025	Enclosed Service Entrance Circuit Breakers
16460	08/22/2016	Dry Type Transformers – 600 volts and Below
16500	08/22/2016	Panelboards
16550	08/22/2016	Grounding
16600	06/26/2025	Underground System
16700	06/26/2025	Common Control Panel Requirements for Equipment
16859	06/26/2025	Electrical Heat Tracing

Division 17 – Instrumentation

17000	08/17/2023	Process Instrumentation and Control System
17200	08/31/2022	Instrument and Control Cabinets and Associated Equipment

Table of Contents

17346	06/26/2025	Flow Meter Indicating Transmitter
17350	01/16/2026	Hydrogen Sulfide Sensor
17370	08/31/2022	Mechanically Activated Level Switches
17600	08/31/2022	Programmable Logic Controllers (PLCs) and Operator Interface Units (OIUs)
17620	08/31/2022	Fiber Optic & Ethernet Communication Equipment
17640	08/31/2022	Workstations & Laptops
17910	06/26/2025	PLC Input Output List
17920	06/26/2025	Control Narrative

VOL. 4 of 4 08/2019 **MBE/WBE Procurement Program Package**

END

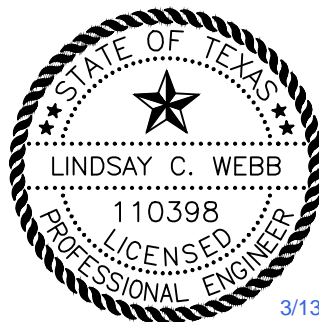
**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

DIVISION 0, DIVISION 1, 802S



3/13/2026

Lindsay Webb

LINDSAY C. WEBB, PE
STV INCORPORATED (F-204)

**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

**SERIES 100, SERIES 200, SERIES 300, 430S, 439S,
506, 508S, 509S, 511, SERIES 600, 860S, SP506**



**E. CLAIRE SEMBERA
CAS CONSULTING ENGINEERS DBA WSB (F-3572)**

**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

02732, DIVISION 4, DIVISION 6, DIVISION 7, DIVISION
8, 09220, 09911, 09912, DIVISION 10



**DARRELL VICKERS, AIA
STV INCORPORATED (TBAE REGISTRATION NO.
BR-4334)**

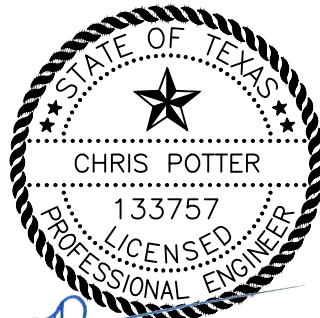
**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

401S, 402, 403, 405, 406S, 408S, 409S, 410S, 411S,
413S, 416S, 720S, 721S, 723, SP401S, SP403S,
SP406S, SP410S, SP720S, 02316, DIVISION 3,
DIVISION 5



Chris Potter 03/13/2026

**CHRIS POTTER, PE
STV INCORPORATED (F-204)**

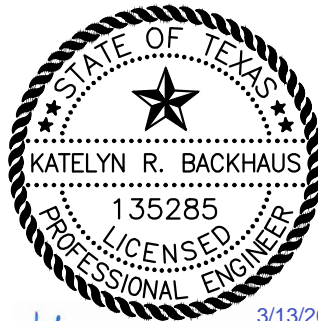
**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

510, 700S, SP510, 11000, 11100, 11313, 11314, 11315,
15047, 15115, 15116, 15119, 15120, 15140, 15256,
15257



3/13/2026

Katelyn R. Backhaus

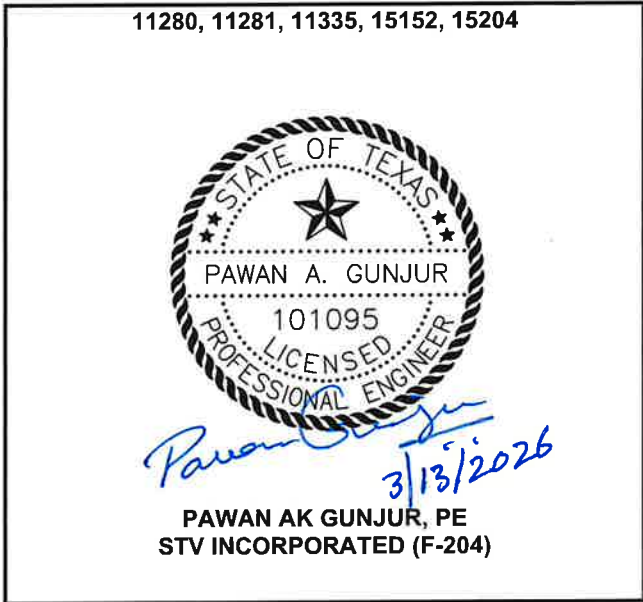
KATELYN R. BACKHAUS, PE
STV INCORPORATED (F-204)

**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026



**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

15500, 15503, 15520, 15550, 15856, 15857, 15860,
15861, 15890, 15891, 15895, 15950, 15990



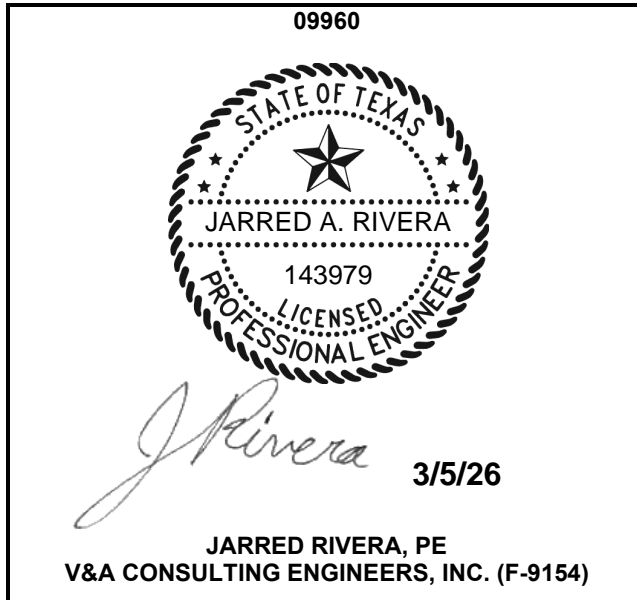
**RICARDO J. AZCARATE, PE
AZCARATE & ASSOCIATES CONSULTING
ENGINEERS LLC DBA AACE (F-10804)**

**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

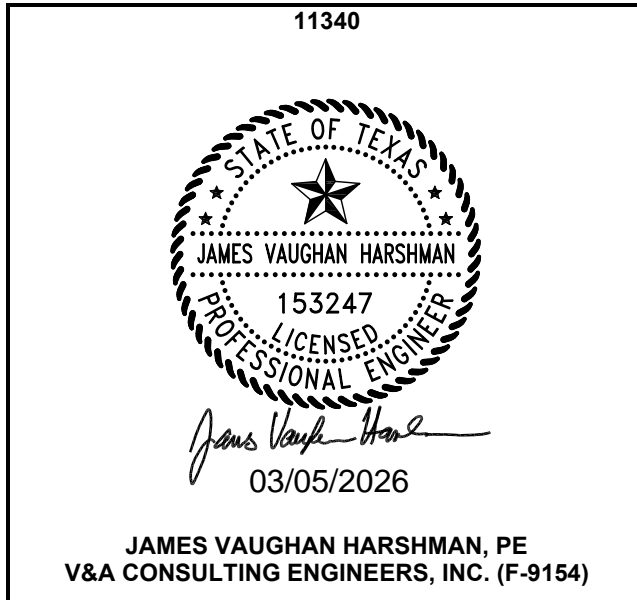


**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026



**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

DIVISION 16, SPECIAL PROVISIONS TO DIVISION 16



Haley Jones

03/13/2026

**HALEY A. JONES, PE
STV INCORPORATED (F-204)**

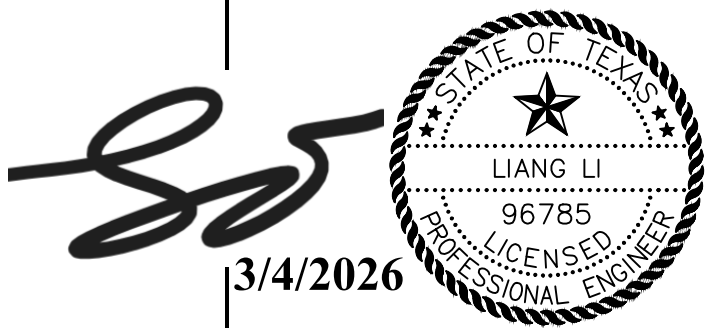
**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026

DIVISION 17, SPECIAL PROVISIONS TO DIVISION 17



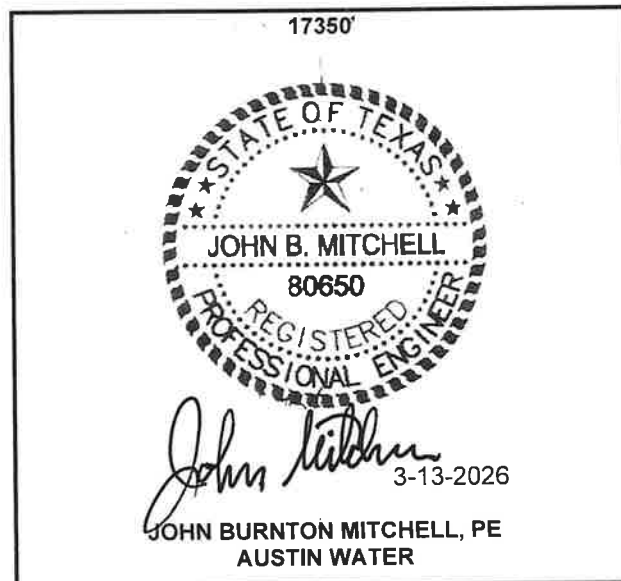
**LIANG LI, PE
STV INCORPORATED (F-204)**

**THE CITY OF AUSTIN
AUSTIN WATER**

BID SET

**HORNSBY BEND BMP
HEADWORKS**

MARCH 2026



1. OVERVIEW AND PROJECT INFORMATION

Following is a summary of information for this Project. Bidder is cautioned to refer to other sections of the Project Manual, Drawings and Addenda (Bid Documents) for further details.

The City of Austin, hereafter called OWNER, is requesting Bids for furnishing all labor, materials, equipment, supervision, and incidentals, and for performing all Work required for the following:

Project:	Hornsby Bend Biosolids Management Plant Headworks Improvements
Located at:	Hornsby Bend Biosolids Management Plant
CIP ID No.:	3164.075
Solicitation No.:	CLMC1170

The Work consists of the following improvements:

- Demolition of the existing headworks facility structure and installation of a new covered structure adjacent to the Flow Equalization Basin (FEB).
- Installation of two (2) new multi-rake bar screens, washer/compactors, a dumpster, and a bypass channel to replace the existing headworks facility equipment.
- Modification of existing gravity belt thickeners.
- Installation of magnetic flow meters and air release valves on all influent lines, located in two separate cast in place vaults.
- Installation of a biotrickling filter to treat the headworks’ foul air stream.
- Installation of a receiving station with a quick connect for sludge delivered by AW trucks and secondary containment.
- Installation of a new electrical room inside the CoGen Building to house new Motor Control Centers (MCCs) and Programmable Logic Controller (PLC).
- Installation of a new electrical room inside the FEB Building to house new MCCs, PLCs, transformers, and control panels.
- Installation of a dedicated control room inside the FEB building to house an HMI workstation, PLC, network rack and security rack.
- Replacement of the switchgear on the exterior of the CoGen Building.
- Installation of new duct bank from the CoGen Building to the FEB Building.
- Replacement of existing electrical equipment in the FEB Building, including MCCs and a PLC in the converted boiler room and expanded control room, respectively.
- Improvements to the HVAC systems for the headworks facility, CoGen Building, and FEB Building.
- Improvements to the security system for the CoGen Building and FEB Building.

2. BID DOCUMENTS

Bid Documents are obtained through the City’s Vendor Connection website, log on https://financeonline.austintexas.gov/afo/account_services/solicitation/solicitations.cfm. A

Bidding Requirements, Contract Forms and Conditions of the Contract

complete set of Bid Documents, including all sections of the Project Manual and Drawings, are included in the attachments section of each solicitation.

All addenda and answers to Bidders' questions will also be posted in the attachments section for each solicitation on the City's Vendor Connection website.

3. SUBMISSION OF BIDS

Bids must be submitted electronically via Austin Finance Online eResponse (see [eResponse Instructions](#)).

Disclaimer: The result of the bid opening does not become final until all bids are verified, and the bid tab is certified. The pencil bid tab and certified bid tab will be posted in Austin Finance Online at the following link:

https://financeonline.austintexas.gov/afo/account_services/solicitation/solicitations.cfm

ALL BIDS AND COMPLIANCE PLANS ARE DUE PRIOR TO (Austin time) 2:00 PM ON JULY 30, 2026.

BIDS WILL BE OPENED AT (Austin time) 3:00 PM ON JULY 30, 2026.

ALL BIDS AND COMPLIANCE PLANS NOT RECEIVED PRIOR TO THE DATE AND TIME SET FORTH ABOVE WILL NOT BE ACCEPTED FOR CONSIDERATION. The time of record is the time received in Austin Finance Online.

4. VENDOR REGISTRATION AND NON-DISCRIMINATION

To create, edit, or submit an eResponse Bid, you must be logged in to your vendor account as the primary contact. You are eligible to submit an eResponse Bid after creating a user account and providing the business information of your organization. All CONTRACTORS must be registered to do business with OWNER prior to the Contract Award. All Subcontractors must be registered with the OWNER prior to execution of a contract. Prime Contractors are responsible for ensuring that their Subcontractors are registered as vendors with the City of Austin. Registration can be done through the OWNER's on-line Vendor Registration system. Log onto and follow directions:

https://financeonline.austintexas.gov/afo/afo_content.cfm?s=17.

The City of Austin, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

5. MBE/WBE PROCUREMENT PROGRAM

All City procurements are subject to the City's Minority-Owned and Women-Owned Business Enterprise Procurement Program found at Chapter 2-9-A of the City Code, as amended. The Program provides Minority-Owned and Women-Owned Business Enterprises (MBEs/WBEs) or Disadvantaged Business Enterprises (DBEs) full opportunity to participate in all City contracts. Goals for MBE/WBE or DBE participation are stated for each solicitation. Information on achieving the goals or documenting good faith efforts to achieve the goals

Bidding Requirements, Contract Forms and Conditions of the Contract

are contained in the MBE/WBE Procurement Program Package or DBE Procurement Program Package attached to the solicitation. When goals are established, Bidders are required to complete and return the MBE/WBE or DBE Compliance Plan with their Bid. If a Compliance Plan is not submitted prior to the date and time set forth in the solicitation, the Bid will not be accepted for consideration. (See Section 00820 for MBE/WBE requirements on "no goal" solicitations.)

6. BID GUARANTY

All Bids shall be accompanied by an acceptable Bid guaranty in an amount of not less than five percent (5%) of the total Bid, as specified in Section 00100, Instructions to Bidders.

7. BONDS AND INSURANCE

Performance and payment bonds when required shall be executed on forms furnished by OWNER. Each bond shall be issued in an amount of one hundred percent (100%) of the Contract Amount by a solvent corporate surety company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law.

Minimum insurance requirements are specified in Section 00810, Supplemental General Conditions.

8. WAGE COMPLIANCE

Minimum wage rates have been established and are specified in Section 00830, Wage Rates and Payroll Reporting.

9. CONTRACT TIME

Contract Time is of the essence and all Work shall be substantially completed within eight hundred and ten (810) Calendar Days after date specified in the Notice to Proceed, in accordance with the Bid Form, Section 00300.

Final completion shall be achieved within ninety (90) Calendar Days after substantial completion.

Liquidated damages are two thousand, six hundred and sixty dollars (\$2,660) per Calendar Day for failure to substantially complete the work and one thousand, nine hundred and fifty dollars (\$1,950) per Calendar Day for failure to achieve final completion within ninety (90) Calendar Days after substantial completion, in accordance with the Bid Form, Section 00300.

10. OWNER'S RIGHTS

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bid).

11. PRE-BID CONFERENCE

A **non-mandatory** Pre-Bid Conference will be held on June 23, 2026 at 10am (Austin time), via webinar and teleconference. Bidders may participate in the virtual pre-bid conference by clicking this link: [Pre-Bid Meeting - CLMC1170](#) or by calling +1 512-831-7858 United States, Austin (Toll), Conference ID: 683 016 479# For those calling in, please send an email to Olga.Jimenez@austintexas.gov with the subject line CLMC1170, indicate in the body of the email your name, the firm you are representing, your contact information and whether you are a prime firm or subcontractor. Please send this by **5:00 pm** on the day of the virtual pre-bid meeting.

A **mandatory** Site-Visit will be held on June 25, 2026 at 10am (Austin time), at Hornsby Bend BMP, 2210 FM 973, Austin, Texas, 78725.

Attendance is mandatory unless otherwise stated. Bidders must attend any mandatory Site-Visit and are encouraged to attend any non-mandatory Site-Visit. If the Site-Visit is mandatory the Bidder must arrive and sign-in within fifteen (15) minutes of the scheduled start time of the Site-Visit, otherwise the Bidder will not be allowed to submit a Bid for the project.

12. ANTI-LOBBYING AND PROCUREMENT

On June 14, 2018, the Austin City Council adopted Ordinance No. 20180614-056 replacing Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly had communication restricted in the ordinance section 2-7-104 during the No-Lobbying Period as defined in the Ordinance. The text of the City Ordinance is posted on the Internet at:

https://assets.austintexas.gov/purchase/downloads/New_ALO_Ordinance_No_20180614-056.pdf

13. AUTHORIZED CONTACT PERSONS

The persons listed below may be contacted for information regarding the Invitation for Bid.

PROJECT MANAGER: Jules Parrish, phone 512-974-9358, email Jules.Parrish@austintexas.gov

CAPITAL CONTRACTING CONTACT: Olga Jimenez, phone 512-974-7988, email Olga.Jimenez@austintexas.gov

SMALL & MINORITY BUSINESS RESOURCES DEPARTMENT CONTACT: Lisa Barney, phone 512-974-8046, email lisa.barney@austintexas.gov

END

1. PREPARATION OF BID

1.1 Bid Documents. Each Bidder must prepare its Bid on forms furnished by OWNER or as otherwise specified or permitted. Blank spaces for each item in Bid form must be filled. Bidder must submit a price for each item in Bid. In case of conflict between unit prices and extensions, unit prices shall govern. The Bid must be executed in the complete and correct legal name of individual, partnership, firm, corporation or other legal entity constituting the Bidder.

1.2 Vendor Registration. To create, edit, or submit an eResponse Bid, you must be logged in to your vendor account as the primary contact. You are eligible to submit an eResponse Bid after creating a user account and providing the business information of your organization. All CONTRACTORS must be registered to do business with OWNER prior to Contract Award. All Subcontractors must be registered with the OWNER prior to execution of a contract. Prime Contractors are responsible for ensuring that their Subcontractors are registered as vendors with the City of Austin. Registration can be done through the OWNER's on-line Vendor Registration system. Log onto https://financeonline.austintexas.gov/afo/afo_content.cfm?s=17 and follow the directions.

1.3 Pre-Bid Conference. Unless otherwise notified, Bidders must attend the Pre-Bid Conference to ensure their understanding of OWNER's bidding and contracting requirements, particularly MBE/WBE Procurement Program requirements.

1.4 Sales Tax Exemption. The Owner is a tax-exempt organization as defined by Chapter 11 of the Property Tax Code of Texas. Bid prices shall not include sales tax on materials, supplies, or equipment that are incorporated into the real property interest of the OWNER or are otherwise completely used and consumed in the performance of the Contract. OWNER will furnish CONTRACTOR with a Sales Tax Exemption Certificate to be issued to Suppliers in lieu of the tax.

1.5 Minimum Wages. Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.

1.6 Addenda. Bidder shall be knowledgeable of all Addenda issued and shall acknowledge all Addenda in spaces provided on Bid form. Further information regarding the Bid documents and the Project may be obtained from the Project Manager listed at the end of Section 00020, Invitation for Bids.

1.7 Required Items. Bids must include all specified items in this section and be submitted in accordance with paragraph No. 7 below. Any additional requirement to the bid submittal is specified in Section 00820. Any corrections to a Bid shall be initialed by the person signing the Bid.

1.8 Professional Services. Bidders must secure any required professional services that are defined as professional services under the Professional Services Procurement Act, Chapter 2254 of the Texas Government Code (for example: registered professional land

surveyors and professional engineers) using the qualifications based selection process prescribed by that chapter. (Note: It is a violation of State Law to solicit Bids for professional services.)

1.9 Further Information. Prospective Bidders desiring further information or interpretation of Project Manual or Drawings must make a written request for such information to OWNER addressed to the Authorized Contact Person listed in Section 00020 no later than seven (7) Working Days before Bid opening. Interpretation of Project Manual or Drawings will be made by Addendum only and obtained through the City's Vendor Connection website. Log on to:
https://financeonline.austintexas.gov/afo/account_services/solicitation/solicitations.cfm.
Any verbal communications will not be binding on the OWNER.

1.10 Anti-Lobbying and Procurement. Article 6, Chapter 2-7, City Code, repealed and replaced effective on June 25, 2018, prohibits lobbying activities or representations by Offerors during the No Lobbying Period as defined in the Ordinance.

1.10.1. FINDINGS; PURPOSE.

- (A) The council finds that persons who enter a competitive process for a city contract voluntarily agree to abide by the terms of the competitive process, including the provisions of this article.
- (B) The council finds that it is in the City's interest:
 - (i) to provide the most fair, equitable, and competitive process possible for selection among potential vendors in order to acquire the best and most competitive goods and services; and
 - (ii) to further compliance with State law procurement requirements.
- (C) The council intends that:
 - (i) each response is considered on the same basis as all others; and
 - (ii) respondents have equal access to information regarding a solicitation, and the same opportunity to present information regarding the solicitation for consideration by the City.

1.10.2. APPLICABILITY.

- (A) This article applies to all solicitations except:
 - (i) City social service funding;
 - (ii) City cultural arts funding;
 - (iii) federal, state or City block grant funding;
 - (iv) the sale or rental of real property;
 - (v) interlocal contracts or agreements; and
 - (vi) solicitations specifically exempted from this article by council.
- (B) Absent an affirmative determination by the council, the purchasing officer has the discretion to apply this article to any other competitive process.
- (C) City Code Section 1-1-99 (*Offenses; General Penalty*) does not apply to this article.

1.10.3. DEFINITIONS.

In this article:

- (A) AGENT means a person authorized by a respondent to act for or in place of the respondent in order to communicate on behalf of that respondent. Each of the following is presumed to be an agent:

Bidding Requirements, Contract Forms and Conditions of the Contract

- (i) a current full-time or part-time employee, owner, director, officer, member, or manager of a respondent;
- (ii) a person related within the first degree of consanguinity or affinity to a current fulltime or part-time employee, owner, director, officer, member, or manager of a respondent;
- (iii) a person related within the first degree of consanguinity or affinity to the respondent, if a respondent is an individual person; and Section 0200 V2, Solicitation Instructions 4 Rev. 06-26-2018
- (iv) a lobbyist, attorney, or other legal representative of the respondent that has been retained by the respondent with respect to the subject matter of either the solicitation or the respondent's response to the solicitation.

(B) AUTHORIZED CONTACT PERSON means a City employee designated in a City solicitation as the point of contact for all purposes for that solicitation.

(C) CITY EMPLOYEE is defined in Section 2-7-2 (*Definitions*), and further includes an independent contractor hired by the City with respect to the solicitation.

(D) CITY OFFICIAL is defined in Section 2-7-2 (*Definitions*).

(E) NO-LOBBYING PERIOD means the period of time beginning at the date and time a solicitation is published and continuing through the earliest of the following:

- (i) the date the last contract resulting from the solicitation is signed;
- (ii) 60 days following council authorization of the last contract resulting from the solicitation; or
- (iii) cancellation of the solicitation by the City

(F) PURCHASING OFFICER means the City employee authorized to carry out the purchasing and procurement functions and authority of the City.

(G) RESPONSE means a submission in reply to a solicitation.

(H) RESPONDENT means a person or entity that has timely submitted or subsequently timely submits a response to a City solicitation, even if that person subsequently withdraws its response or has been disqualified by the City for any reason. Respondent includes:

- (i) a subsidiary or parent of a respondent;
- (ii) a joint enterprise, joint venture, or partnership with an interest in a response and in which a respondent is a member or is otherwise involved, including any partner in such joint enterprise, joint venture, or partnership; and
- (iii) a subcontractor to a respondent in connection with that respondent's response.

(I) SOLICITATION means an opportunity to compete to conduct business with the City that requires council approval under City Charter Article VII Section 15 (*Purchase Procedure*), and includes, without limitation:

- (i) an invitation for bids;
- (ii) a request for proposals;
- (iii) a request for qualifications;
- (iv) a notice of funding availability; and
- (v) any other competitive solicitation process for which the purchasing officer, in the purchasing officer's sole discretion, affirmatively determines this article should apply in accordance with Section 2-B.

1.10.4. RESTRICTION ON LOBBYING.

Subject to the exclusions in Section 5 (*Permitted Communications*), during a no-lobbying period,

(A) a respondent or an agent shall not communicate directly with a City official or a City employee, or both in order to:

- (i) provide substantive information about any respondent or response with respect to the solicitation to which the communication relates;
- (ii) encourage the City to reject one or more of the responses to the solicitation to which the communication relates;
- (iii) convey a complaint about the solicitation to which the communication relates; or
- (iv) ask any City official or City employee to favor or oppose, recommend or not recommend, vote for or against, consider or not consider, or take action or refrain from taking action on any vote, decision, or agenda item regarding the solicitation to which the communication relates.

(B) a City official shall not contact or communicate with a respondent regarding a response or the solicitation to which the no-lobbying period applies;

(C) a City employee, other than the authorized contact person, shall not contact or communicate with a respondent regarding a response or the solicitation to which the no-lobbying period applies.

1.10.5. PERMITTED COMMUNICATIONS.

The following communications are permitted under this article at any time:

- (A) any communication between a respondent or agent and any authorized contact person, including, without limitation and in accordance with regulation, any complaint concerning the solicitation;
- (B) any communication between a respondent or agent and any person to the extent the communication relates solely to an existing contract between a respondent and the City, even when the scope, products, or services of the current contract are the same or similar to those contained in an active solicitation;
- (C) any communication between a respondent or an agent and a City employee to the extent the communication relates solely to a non-substantive, procedural matter related to a response or solicitation;
- (D) any communication required by or made during the course of a formal protest hearing related to a solicitation;
- (E) any communication between a respondent or an agent and the City's Small & Minority Business Resources Department, that solely relates to compliance with Chapters 2-9A through 2-9D (*Minority-Owned and Women-Owned Business Enterprise Procurement Program*) of the City Code;
- (F) any communication between an attorney representing a respondent and an attorney authorized to represent the City, to the extent the communication is permitted by the Texas Disciplinary Rules of Professional Conduct;
- (G) any communication made by a respondent or an agent to the applicable governing body during the course of a meeting properly noticed and held under Texas Government Code Chapter 551 (*Open Meetings Act*);
- (H) any communication between a respondent or an agent and a City employee whose official responsibility encompasses the setting of minimum insurance requirements for the solicitation to which the communication relates, to the extent the communication relates solely to the insurance requirements established by the City in the solicitation; and

(I) any contribution or expenditure as defined in Chapter 2-2 (*Campaign Finance*).

1.10.6. MODIFICATION OF RESTRICTION.

The purchasing officer may waive, modify, or reduce the requirements in Section 4 (*Restrictions on Lobbying*) in order to allow respondents to communicate with a City employee or a City official other than the authorized contact person when the purchasing officer determines, in writing, that the solicitation must be conducted in an expedited manner, including but not limited to a solicitation conducted for reasons of health or safety under the shortest schedule possible with no extensions. Any such modification authorized by the purchasing officer shall be stated in the solicitation.

1.10.7. NOTICE.

- (A) Each solicitation shall include a notice advising respondents and prospective respondents:
- (i) of the requirements of this article;
 - (ii) that any communication initiated by a City employee or City official, other than the authorized contact person, during the no-lobbying period regarding a response or the solicitation may result in a violation of Section 4(A) if the respondent subsequently lobbies that City employee or City official.
- (B) The purchasing officer, or a City employee designated by the purchasing officer, shall provide weekly written notice, accessible to all City employees and City officials, of each solicitation for which the no-lobbying period is in effect.

1.10.8. DISCLOSURE OF VIOLATION.

A City official or a City employee other than the authorized contact person that becomes aware of a violation of Section 4 (*Restrictions on Lobbying*) shall notify the authorized contact person in writing as soon as practicable.

1.10.9. ENFORCEMENT.

- (A) A respondent that has been disqualified pursuant to Section 10(A) (*Disqualification; Contract Voidable*) may appeal such disqualification to a subcommittee that is less than a quorum of the Ethics Review Commission established in Chapter 2-7, Article 2 (*Ethics Review Commission*), whose decision on appeal shall be final and binding. Any appeal must be filed in the manner prescribed by the Ethics Review Commission within 5 calendar days of the notice given by the purchasing officer pursuant to Section 10(B).
- (B) The purchasing officer shall waive a violation of Section 4(A) if the violation was solely the result of communications initiated by a City official or a City employee other than the authorized contact person.
- (C) The purchasing officer has the authority to enforce this article through rules promulgated in accordance with Chapter 1-2 (*Adoption of Rules*), which at a minimum shall include a notice and protest process for respondents disqualified pursuant to Section 10 (*Disqualification; Contract Voidable*), including:
- (1) written notice of the disqualification imposed pursuant to Section 10 (*Disqualification; Contract Voidable*);
 - (2) written notice of the right to protest the disqualification imposed; and
 - (3) written notice of the right to request an impartial hearing process.

1.10.10. DISQUALIFICATION; CONTRACT VOIDABLE.

(A) If the purchasing officer finds that a respondent has violated Section 2-7-104(1), the respondent is disqualified from participating in the solicitation to which the violation related.

(B) The purchasing officer shall promptly provide written notice of disqualification to a disqualified respondent.

(C) If a respondent is disqualified from participating in a solicitation as a result of violating Section 2-7-104(1) and the solicitation is cancelled for any reason, that respondent is also disqualified from submitting a response to any reissue of the same or similar solicitation for the same or similar project. For the purposes of this section, the purchasing officer may determine whether any particular solicitation constitutes a "same or similar solicitation for the same or similar project".

(D) If a respondent violates Section 104(1) and is awarded a contract resulting from the solicitation to which the violation relates, the City may void that contract.

(E) Respondents that violate Section 2-7-104(1) three or more times during a five year period may be subject to debarment from participating in any new contracts with the City for a period of up to three years.

1.11 City's Minority-Owned and Women-Owned Business Enterprise / Disadvantaged Business Enterprise (MBE/WBE or DBE) Program Requirements.

Good Faith Efforts. When a bidder cannot achieve the MBE/WBE or DBE goals or subgoals established for the project, the bidder must document its Good Faith Efforts to meet the goals or subgoals. Good Faith Effort evaluations will consider, at a minimum, the bidder's efforts to do the following:

1.11.1 Soliciting through at least two reasonable, available and verifiable means MBEs/WBEs within the Significant Local Business Presence boundaries at least seven (7) business days prior to the bid opening date to allow the MBEs/WBEs or DBEs to respond to the bid.

1.11.2 Providing interested MBEs/WBEs or DBEs adequate information about the bid documents and requirements, including addenda, in a timely manner to assist them in responding to the bid.

1.11.3 Negotiating in good faith with interested MBEs/WBEs DBEs that have submitted bids to the bidder.

1.11.4 Publishing notice in a local publication such as a newspaper, trade association publication or via electronic/social media.

1.11.5 Not rejecting MBEs/WBEs or DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities.

1.11.6 Making economically feasible portions of the work available to MBE/WBE or DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE or DBE subcontractors and suppliers, so as to facilitate meeting the goals or subgoals.

1.11.7 The ability or desire of the bidder to perform the project work with its own

organization does not relieve the bidder of the responsibility to make Good Faith Efforts.

1.11.8 Bidders are not required to accept higher quotes in order to meet the goals or subgoals.

1.11.9 Effectively using the services of Minority Person/Women community organizations; Minority Person/Women Contractors groups; local, state and federal Minority Person/Women business assistance offices; and other organizations to provide assistance in solicitation and utilization of MBEs, WBEs and/or DBEs.

1.11.10 In assessing minimum Good Faith Efforts, the OWNER may consider (1) whether the bidder sought guidance from the City of Austin Small and Minority Business Resources Department (SMBR) on any question regarding compliance with these requirements; and (2) the performance of other bidders in meeting the goals.

For additional information, refer to the MBE/WBE or DBE Compliance Program Requirements Volume of the Project Manual.

Bid shopping is not allowed in conjunction with this solicitation and may result in the disqualification of prospective bidders and subcontractors.

2. ESTIMATES OF QUANTITIES (UNIT PRICE CONTRACTS ONLY)

Quantities listed in unit price Bid form are to be considered approximate quantities and will be used only for comparison of Bids. Payment to CONTRACTOR will be made only for actual quantities of Work performed or materials furnished in accordance with Contract and it is understood that quantities may be increased or decreased as provided in Section 00700, General Conditions, and as may be modified by Section 00810, Supplemental General Conditions.

3. DRAWINGS, PROJECT MANUAL AND SITE (S) OF WORK

Before submitting a Bid, the Bidder shall carefully examine the Bid Documents, site(s) of the proposed Work, soils, and other conditions that may affect the performance of the Work to satisfy the Bidder as to character, quality and quantities of Work to be performed and materials to be furnished. By submitting a Bid, the Bidder will be deemed to have certified that the Bidder has complied with these requirements. If, during preparation of the Bid, the Bidder discovers any suspected discrepancies or errors, the Bidder must immediately notify the Authorized Contact Person in writing of the suspected discrepancy or error. Failure to provide written notice of any suspected discrepancies or errors may be cause for rejection of the Bid.

4. BID GUARANTY

All Bids shall be accompanied by a Bid guaranty in an amount of not less than five percent (5%) of the total Bid. Bid guaranty will be a Bid bond with Power of Attorney attached, issued by a solvent surety authorized under laws of the State of Texas and acceptable to OWNER. For Bidders electing to submit Bids and Bid Guaranties electronically via Austin Finance Online, Bid Guaranties will be verified by the Owner prior to bid certification and electronic copies of Bid Guaranties will not be returned to Bidders.

The Bid guaranty accompanying the Bid of the three (3) apparent low Bidders will be retained until Contract is awarded and successful Bidder executes Contract and furnishes required

Bidding Requirements, Contract Forms and Conditions of the Contract

bonds and insurance, after which Bid guaranties will be returned to the Bidders. All other Bid guaranties will be returned after Bid certification. In the event that the Bidder to whom the Contract is awarded fails to execute the Contract within five (5) working days of receipt of a complete set of Contract Documents the Bidder agrees that the OWNER in its discretion may rescind the initial award and award the Contract to the next lowest responsible Bidder.

5. PERFORMANCE AND PAYMENT BONDS

When performance and/or payment bonds are required, each shall be issued in an amount equal to the Contract Amount as security for the faithful performance and/or payment of all Contractor's obligations under the Contract Documents. Performance and payment bonds shall be issued by a solvent corporate surety authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law.

6. CONSIDERATION OF BID AMOUNT

For purpose of award, after Bids are opened, reviewed, and certified, the total amount of the Bid, including accepted Bid alternates, will be considered the amount of the Bid. Certified Bid tabulations will be made available to the public through the City's Vendor Connection website, log on

https://financeonline.austintexas.gov/afo/account_services/solicitation/solicitations.cfm.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bids).

7. SUBMISSION OF BID

Each Bid must be completed and signed by person(s) authorized to bind individual, partnership, firm, corporation, or any other legal entity submitting the Bid, and, shall include the following electronically via Austin Finance Online eResponse:

7.1 One copy of Bid form (Section 00300L or 00300U) completed and signed.

7.2 Acknowledgment of receipt of Addenda issued in spaces provided in Bid form.

7.3 One copy of Required Bid guaranty

7.4 Required Information indicated in Drawings or Project Manual as specified in Section 00820.

7.5 One copy of Total Bid Form.

Bid must be accompanied by an MBE/WBE or DBE Compliance Plansubmitted electronically via Austin Finance Online, prior to the date and time set forth in Section 00020, Invitation for Bids. The Compliance Plan forms are included in the MBE/WBE Procurement Program Package or DBE Procurement Program Package (a separately bound volume).

Bid shall include all specified items in this section submitted electronically via Austin Finance Online.

In submitting its Bid, Bidder certifies that it has not lobbied the City or its officials, managers, employees, consultants, or contractors in such a manner as to influence or to attempt to influence the bidding process. In the event it reasonably appears that the Bidder influenced or attempted to influence the bidding process, the City may, in its discretion, reject

the Bid.

8. WITHDRAWAL OF BID

For withdrawal of an electronic bid see eResponse Instructions.

9. REJECTION OF BIDS

9.1 The following **will** be cause to reject a Bid:

9.1.1 Failure to submit Section 00300 (Bid Form) and signed by an individual empowered to bind the Bidder.

9.1.2 Bids which are not accompanied by acceptable Bid guaranty, with Power of Attorney attached, or a letter certifying the Bidder's ability to be bonded, from a surety company, in accordance with Paragraph 4 above.

9.1.3 More than one Bid for same Work from an individual, firm, partnership or corporation.

9.1.4 Evidence of collusion among Bidders.

9.1.5 Sworn testimony or discovery in pending litigation with OWNER which discloses misconduct or willful refusal by contractor to comply with subject contract or instructions of OWNER.

9.1.6 Failure to submit MBE/WBE or DBE Compliance Plan in accordance with the separately bound volume titled MBE/WBE Procurement Program Package or DBE Procurement Program Package.

9.1.7 Failure to have an authorized agent of the Bidder attend the mandatory Pre-Bid Conference, if applicable.

9.1.8 Bids received from a Bidder who has been debarred or suspended by OWNER's Purchasing Officer.

9.1.9 Bids received from a Bidder when Bidder or principals are currently debarred or suspended by Federal, State or City governmental agencies. (Applicable for Bid amounts equal to or in excess of \$25,000.00).

9.1.10 Bids received from a Bidder, who is identified on a list maintained by the Texas Comptroller of Public Accounts as a company known to have contracts with or provide supplies or services to a foreign terrorist organization, unless otherwise exempted from sanctions by the United States government.

9.2 The following **may** be cause to reject a Bid:

9.2.1 Poor performance in execution of work under a previous City of Austin contract.

9.2.2 Failure to achieve reasonable progress on an existing City of Austin contract.

9.2.3 Default on previous contracts or failure to execute Contract after award.

Bidding Requirements, Contract Forms and Conditions of the Contract

9.2.4 Evidence of failure to pay Subcontractors, Suppliers or employees in accordance with Contract requirements.

9.2.5 Bids containing omissions, alterations of form, additions, qualifications or conditions not called for by OWNER, or incomplete Bids may be rejected. In any case of ambiguity or lack of clarity in the Bid, OWNER reserves right to determine most advantageous Bid or to reject the Bid.

9.2.6 Failure to acknowledge receipt of Addenda.

9.2.7 Failure to submit any of the items specified below in paragraph 11, "Submission of Post Bid Information".

9.2.8 Failure to identify a dollar amount (price) of a unit price(s) in the 00300U including all Bid Alternates in the Bid Form 00300U or 00300L.

9.2.9 Failure to submit post-Bid information within the allotted time(s) (see paragraph 11 for post-Bid requirements).

9.2.10 Failure to timely execute Contract after award.

9.2.11 Previous environmental violations resulting in fines or citations by a governmental entity (i.e. U.S. Environmental Protection Agency, Texas Commission on Environmental Quality, etc.).

9.2.12 Safety record as set forth in Section 00410, Statement of Bidder's Safety Experience.

9.2.13 Failure of Bidder to demonstrate the minimum experience required as specified in Section 00400 if that Section is included in the bidding documents.

9.2.14 Evidence of Bidder's lack of sufficient resources, workforce, equipment or supervision, if required by inclusion of appropriate attachments in Section 00400.

9.2.15 Evidence of poor performance on previous Projects as documented in Owner's project performance evaluations.

9.2.16 Unbalanced Unit Price Bid: "Unbalanced Bid" means a Bid, which includes a Bid that is based on unit prices which are significantly less than cost for some Bid items and significantly more than cost for others. This may be evidenced by submission of unit price Bid items where the cost are significantly higher/lower than the cost of the same Bid items submitted by other Bidders on the project.

10. PROTEST PROCEDURES

The OWNER's Chief Procurement Officer or designee has the authority to settle or resolve any claim of an alleged deficiency or protest. The procedures for notifying the City of an alleged deficiency or filing a protest are listed below. If you fail to comply with any of these requirements, the Chief Procurement Officer or designee may dismiss your complaint or protest.

10.1 Protest regarding the Solicitation (Pre-Submittal of Bid Protest). Any protest regarding the Solicitation by the City shall be filed no later than five (5) days prior to the due

date and time for Bids. Any protest filed after that date which raises issues regarding the Solicitation will not be considered.

10.2 Protests regarding the evaluation of Bids. Any protest regarding the evaluation of Bids by the City shall be filed with the City no later than five (5) days after the notification of award recommendation is posted on Austin Finance Online, or notification that the protestor's status as a Bidder has changed, such as notification that a Bid has been found to be non-responsive or a Bidder has been found to be non-responsible. Any protest filed after such date which raises issues regarding the evaluation will not be considered. Bidders may only protest the evaluation of their Bid.

10.3 Protest Regarding Award of Contract (Post-Award Protest). Any protest regarding the award of the contract shall be filed no later than ten (10) days after the date of award. Any protest regarding the award of the contract filed after such date will not be considered.

10.4 You shall submit your protest in writing and it shall include the following information: (i) your name, address, telephone, and email address; (ii) the Solicitation number; (iii) the specific facts and/or law upon which the protest of the Solicitation or the award is based, including all pertinent documents and evidence thereto; and (iv) the form of relief requested.

10.5 Your protest shall be concise and presented logically and factually to help with the City's review.

10.6 When the City receives a timely written protest, the Chief Procurement Officer or designee will determine whether the grounds for your protest are sufficient. If the Chief Procurement Officer or designee decides that the grounds are sufficient, the Chief Procurement Officer or designee will schedule a protest hearing, usually within five (5) working days. If the Chief Procurement Officer or designee determines that your grounds are insufficient, the City will notify you of that decision in writing.

10.7 The protest hearing is informal and is not subject to the Open Meetings Act. The purpose of the hearing is to give you a chance to present your case, it is not an adversarial proceeding. Those who may attend from the City are: representatives from the department that requested the purchase, the Department of Law, the Financial Services Department, and other appropriate City staff. You may bring a representative or anyone else that will present information to support the factual grounds for your protest with you to the hearing.

10.8 A decision will usually be made within fifteen (15) calendar days after the hearing.

10.9 The City will send you a copy of the hearing decision after the appropriate City staff has reviewed the decision.

10.10 When a protest is filed, the City usually will not make an award until a decision on the protest is made. However, the City will not delay an award if the City Manager or the Chief Procurement Officer or designee determines that the City urgently requires the supplies or Services to be purchased, or failure to make an award promptly will unduly delay delivery or performance. In those instances, the City will notify you and make every effort to resolve your protest before the award.

10.11 The protest shall be submitted in writing to the Authorized Contact Person – Capital Contracting Contact identified in the Invitation for Bids, Section 00020.

11. SUBMISSION OF POST BID INFORMATION

11.1 Prior to determination of the certified low Bidder, the three (3) apparent low Bidders must submit to OWNER the following information within three (3) business days of receipt of notice of apparent low Bidder status by the OWNER:

Bidding Requirements, Contract Forms and Conditions of the Contract

11.1.1 One copy of Attachments A-I and any other specifically designated Attachments of the Statement of Bidder's Experience (Section 00400), completed and signed. (Unless provided to the contrary in Section 00820 Modifications to Bidding Requirements and Contract Forms). (Note: OWNER reserves the right to solely determine whether the comparable experience documentation provided by the Bidder is sufficient and relevant to the Work described in the Contract Documents for the Bidder to be considered a responsible Bidder.)

11.1.2 One Copy of the Certificate of Non-Suspension or Debarment (Section 00405), completed and signed. (Applicable for Bid amounts equal to or in excess of \$25,000.00.)

11.1.3 One copy of Section 00410, Statement of Bidder's Safety Experience, including required attachments, completed and signed.

11.1.4 One copy of the Title VI Assurances Appendix A (Section 00631), completed and signed.

11.1.5 One copy of the Title VI Assurance Appendix E (Section 00632), completed and signed.

11.1.6 One copy of Exhibit A Federal Provisions (Section 00810A) completed and signed. (Federal projects only)

11.1.7 Such other information as is required to evaluate Bid or Bidder.

11.2 Upon notification of status as certified low Bidder, Bidder shall submit the following information to OWNER within three (3) business days:

11.2.1 Confirmation Letters between Bidder and all subcontractor(s) and all supplier(s) identified in the MBE/WBE Compliance Plan.

11.2.2 Section 00425A, Insurance Cost Form. For ROCIP projects.

11.2.3 Section 00425B, Contractor Affidavit of Receipt and Provision of ROCIP Information, and Subcontractor Affidavit of Receipt and Provision of ROCIP Information (for Subcontractor(s) of all tiers identified in the MBE/WBE Compliance Plan). For ROCIP projects.

11.2.4 Section 00830WT, Wage Theft Certification Form.

11.2.5 Such other information as required. In addition, the Bidder acknowledges and agrees that the failure to timely provide the additional information required by this section will result in a determination that, for the purposes of this solicitation, the Bidder has not provided sufficient information for the OWNER to be able to determine that the Bidder is a responsible Bidder.

12. AWARD AND EXECUTION OF CONTRACT

OWNER will process Bids expeditiously. Award of Contract will be to the lowest, responsible Bidder meeting all requirements of the Bid Documents. OWNER may not award Contract to a nonresident Bidder unless the nonresident underbids the lowest Bid submitted by a responsible resident Bidder by an amount that is not less than the amount by which a

Bidding Requirements, Contract Forms and Conditions of the Contract

resident Bidder would be required to underbid the nonresident Bidder to obtain a comparable contract in the state in which the nonresident's principal place of business is located.

Award of Contract will occur within the period identified on the Bid form, unless mutually agreed between the parties. Capital Contracting Officer shall submit recommendation for award to the City Council for those project awards requiring City Council action. Contract will be signed by City Manager or his/her designee after award and submission of required documentation by Bidder. Contract will not be binding upon OWNER until it has been executed by both parties. OWNER will process the Contract expeditiously. However, OWNER will not be liable for any delays prior to the award or execution of Contract.

Upon contract award, the selected Bidder must submit either their existing or an updated personnel policy (on letterhead) documenting conformity with City Code, Chapter 5-4, § 5-4-2. If the company does not submit a copy of their personnel policy incorporating the non-discrimination policy, the City of Austin Nondiscrimination Policy (Section 00630) will be considered the Bidder's nondiscrimination policy.

In any case of ambiguity or lack of clarity in the Bid, OWNER reserves the right to determine the most advantageous Bid or to reject the Bid.

Notwithstanding anything in this Section 00100 to the contrary, the OWNER may award a contract for construction services in an amount of less than \$100,000 to a bidder whose principal place of business is in the City of Austin and whose bid is within 5% of the lowest bid price received from a bidder whose principal place of business is not within the City of Austin, if the City finds that the local bidder offers the City the best combination of contract price and additional economic development opportunities for the City created by the contract award including the employment of resident of the City and increased tax revenues to the City.

13. PARTNERING

In order to complete the Work in a manner that is most beneficial to the OWNER and CONTRACTOR, OWNER and CONTRACTOR may form a "Partnering Team", which will include the E/A, and any major Subcontractors. This partnering relationship will draw on the strength of all parties to identify and achieve mutual goals. The objectives of this partnering relationship are effective and efficient communication and Contract performance, which is intended to ensure that the Project is completed within budget, on schedule, and in accordance with the Drawings and Specifications and other Contract requirements. While the partnering relationship will be multilateral in makeup and participation will be totally voluntary, the OWNER and CONTRACTOR agree to cooperate and use reasonable good faith efforts to discuss and resolve any and all Project issues and disputes. Section 01100, Special Project Procedures and/or Section 01200, Project Meetings contain additional information regarding the intent of the partnering relationship and responsibilities of the entities entering into the partnering charter.

14. ROCIP REQUIREMENTS

If the insurance on this Project will be under the Rolling Owner Controlled Insurance Program (ROCIP), the Bidder is directed to Section 00810, Supplemental General Conditions, Section 00820, Modifications to Bidding Requirements and Contract Forms, and the Project Safety Manual included with these contract documents for information and bidding requirements.

Bidding Requirements, Contract Forms and Conditions of the Contract

The Insurance Cost Form, Section 00425A must be accurately completed and submitted by the certified low bidder as a post bid submittal to indicate insurance was removed from the Base Bid and Alternates. CONTRACTOR shall remove from the Bid the cost of insurance for the CONTRACTOR and Subcontractors of all tiers working on site.

The Rolling Owner Controlled Insurance Program Information, Section 00425B, Contractor Affidavit of Receipt and Provision of ROCIP Information and Subcontractor Affidavit of Receipt and Provision of ROCIP Information for subcontractor(s) of all tiers identified in the MBE/WBE Compliance Plan must be accurately completed and submitted by the certified low bidder as a post bid submittal. Subcontractor Affidavits must be submitted throughout the duration of the Contract as Subcontractor(s) are added.

15. SIGNATURE REQUIREMENTS

The Bid and any subsequent supporting Bid documents and Contract must be executed in the Bidder's full name and legal entity status by an authorized representative of the Bidder. Accordingly, a partnership/joint venture must file its partnership/joint venture agreement, a corporation must file its articles and bylaws, a limited liability company must file its certificate of organization and article of organization and regulations, and a limited partnership must file not only limited partnership agreement and the certificate of limited partnership, but also the documentation for its general partner, and any Bidder must file a copy of any assumed name certificate, or such limited portion of such documents reasonably establishing signature authority.

16. CONTRACTOR EVALUATION

The Owner will review and evaluate the Contractor's Work and performance on the Project and provide the Contractor with a written Contractor Evaluation Report in accordance with City of Austin Administrative Rule R161-13.37. Rule R161-13.37 provides an appeal process. <http://www.austintexas.gov/department/contract-management>

17. TEXAS ETHICS COMMISSION CERTIFICATE OF INTERESTED PARTIES DISCLOSURE FORM

17.1 Definitions:

17.1.1 "Interested Party" – means a person who has a controlling interest in a Business Entity with whom the Owner contacts or who actively participates in facilitating the Contract or negotiating the terms of the Contract, including a broker, intermediary, adviser, or attorney for the Business Entity.

17.1.2 "Business entity" - includes an entity through which business is conducted with a governmental entity or state agency, regardless of whether the entity is a for-profit or nonprofit entity. The term does not include a governmental entity or state agency.

17.2 As a condition to entering the Contract, the Business Entity constituting the successful Bidder must provide a Texas Ethics Commission Certificate of Interested Parties Form to the Owner at the time the Business Entity/Bidder submits the signed Contract to the Owner in full compliance with the following requirements under which the successful Bidder shall:

17.2.1 Go to the Ethics Commission's website (www.ethics.state.tx.us),

Bidding Requirements, Contract Forms and Conditions of the Contract

17.2.2 Complete the "Interested Parties" information, in accordance with the requirements of the Texas Ethics Commission Rules published at Title 1, Part 2, Chapter 46, of the Texas Administrative Code and available on the referenced website,

17.2.3 Include the City's contract identification number,

17.2.4 Include a short description of the goods or services to be used by the City, and

17.2.5 Indicate whether each interested party has a controlling interest in the business entity, is an intermediary in the contract for which the disclosure is being filed, or both.

17.3 In accordance with the Commission Rules, the Certificate of Filing and completed Certificate of Interested Parties must be (i) printed, (ii) signed by an authorized agent of the business entity, and (iii) submitted to the City at the time of the submission of the signed contract to the City. The City then must notify the Ethics Commission in electronic format of receipt of the document within 30 days of contracting and the Commission will make the disclosure of interested parties available to the public on its website.

END

1. OVERVIEW

Depending on Project requirements, OWNER may have obtained geotechnical information, which may include laboratory test results and logs of borings from geotechnical consultants. That information will be included in this section and/or on the Drawings. The CONTRACTOR shall be familiar with the subsurface materials and conditions on the Project and shall be knowledgeable of how they will affect the Work. The following is a partial listing of sources of information available to the CONTRACTOR about subsurface materials and conditions: the geotechnical information provided by the OWNER; geologic maps, publications and reports available from the University of Texas Bureau of Economic Geology at the J.J. Pickle Research Center in Austin, Texas; subcontractors familiar with local ground conditions; and, local consulting geologists and geotechnical engineers. The CONTRACTOR may make their own subsurface investigations.

Subsurface Investigation and Foundation Recommendations for Hornsby Bend BMP Headworks Improvements Design, dated 3/12/2024, prepared by Holt Engineering, Inc is attached. The requirements in the Drawings and Specifications shall be used in the event of a conflict between this report and the Drawings and Specifications.

END

SUBSURFACE INVESTIGATION
AND
FOUNDATION RECOMMENDATIONS
FOR

HORNSBY BEND BMP HEADWORKS IMPROVEMENTS DESIGN

2210 F.M. 973
AUSTIN, TEXAS

REPORT FOR:

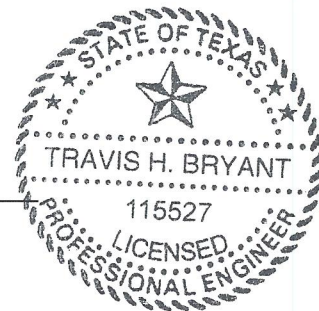
CP&Y
13809 RESEARCH BOULEVARD, SUITE 300
AUSTIN, TEXAS 78750

M. Antonio Gonzalez

M. ANTONIO GONZALEZ, E.I.T.
GRADUATE ENGINEER

Travis H. Bryant

TRAVIS H. BRYANT, P.E.
PRINCIPAL ENGINEER



HOLT ENGINEERING, INC.
TBPE FIRM REGISTRATION NO. F-430

FILE NO. 08-21723
REVISED: 12 MARCH 2024
ORIGINAL: 18 OCTOBER 2023

TABLE OF CONTENTS

	PAGE
INTRODUCTION.....	1
SCOPE	1
SITE DESCRIPTION	2
LABORATORY TESTS.....	2
SUBSURFACE CONDITIONS.....	2
DISCUSSION AND RECOMMENDATIONS	3
SPECIFIC FOUNDATION RECOMMENDATIONS.....	6
SEISMIC DESIGN	9
PAVEMENT DESIGN SECTION.....	9
PAVEMENT CONSTRUCTION CONSIDERATIONS.....	10
QUALITY CONTROL PROGRAM	11
LIMITATIONS	12

APPENDIX

SELECT FILL SPECIFICATIONS	1
PROJECT LOCATION PLAN	2
GENERALIZED BORING LOCATION PLAN	3
LOGS OF BORINGS (5) AND BORING LOGS – TERMS & SYMBOLS.....	4

SUBSURFACE INVESTIGATION
AND
FOUNDATION RECOMMENDATIONS
FOR
HORNSBY BEND BMP HEADWORKS IMPROVEMENTS DESIGN
2210 F.M. 973
AUSTIN, TEXAS

INTRODUCTION

An exploration of the subsurface conditions was performed for the proposed Hornsby Bend Biosolids Management Plant (BMP) Headworks Improvements Design to be located at 2210 FM 973 in Austin, Texas. The investigation was authorized by Ms. Lindsay Webb, P.E., with CP&Y in accordance with our proposal dated 22 April 2020. The purpose of this investigation has been to determine subsurface materials and conditions at the site in order to establish design and construction criteria for the project features that will be affected by subsurface materials.

SCOPE

Our investigation consisted of the following:

- A. Laying out and drilling five soil borings to depths of 50 feet to 80 feet each below existing grade.
- B. Logging the borings in the field and a visual reconnaissance of the area's terrain.
- C. Taking samples of selected subsurface soils for laboratory tests.
- D. Performing field tests.
- E. Making recommendations based on engineering analysis of field notes and laboratory test results.

SITE DESCRIPTION

The existing Hornsby Bend Biosolids Management Plant (BMP) is located at 2210 FM 973 in Austin, Texas. The site consists of an existing wastewater treatment plant with multiple structures and ponds throughout the site. The proposed BMP location consists of multiple above grade piping and is covered in native grasses with no trees. Existing asphalt paving is located around the proposed BMP area. The terrain is relatively level across the building site.

LABORATORY TESTS

The following laboratory tests were run on selected samples:

1. Moisture content (ASTM D2216);
2. Minus 200-mesh sieve (ASTM D422);
3. Atterberg limits (ASTM D4318).

These tests were performed together with visually inspecting and classifying the soil in general accordance with ASTM D2487 and described as recommended in ASTM D2488. Results of these tests were used to determine the foundation design criteria such as bearing capacity and the potential for settlement or heave.

SUBSURFACE CONDITIONS

The approximate locations of the borings are shown in the attached Generalized Boring Location Plan. A general description of the soil conditions is given below. A detailed depiction of the soil conditions is given in the Logs of Borings found in the Appendix.

In general, fill material is found on the surface extending to depths ranging from 8 feet to 9.5 feet. In boring B-01 drilled in the existing concrete, 7½ inches of concrete is found at the surface overlying 6½ inches base material, which overlies the fill material. On the surface in boring B-04 and below the fill material in the other borings, brown, dark brown, and light brown sandy lean clay is found and extends to the termination of the borings B-01 through B-04 at a depth of 50 feet below existing grade. In boring B-05, lean clay extends to a depth of 60 feet and overlies brown sand. The brown sand extends to a depth of 72 feet and overlies gray shale, which extends to the termination of the boring at a depth of 80 feet below existing grade.

The base material consists of tan crushed limestone. The fill material consists of brown, dark brown, and light brown silty sandy clay, sandy silt, and clayey sandy silt and is low in plasticity with Plasticity Indices (P.I.'s) ranging from 9 to 12. The brown, dark brown, and light brown sandy lean clay is low in plasticity with P.I.'s ranging from 6 to 15. The deeper deposited brown and light brown lean clay is low to moderate in plasticity with P.I.'s ranging from 11 to 21. Unconfined compression tests in the brown lean clay ranged from 1.4 TSF to 2.1 TSF. The brown sand is coarse and medium dense. The gray shale is stiff to very stiff.

Groundwater was encountered during the drilling operation in boring B-05 at a depth of 61.5 feet. We expect this to be the permanent groundwater table.

DISCUSSION AND RECOMMENDATIONS

It is our understanding improvements are planned for the existing facility which will include a new headworks facility, flow meter vault, two sludge receiving stations, and dumpster pad. It is further our understanding, the headworks structure will be approximately 13 feet above existing grade, the proposed sludge receiving stations will be at-grade, and the proposed flow meter vault will be buried approximately 8 feet below existing grade.

Headworks Facility

It is our understanding, as mentioned above, the proposed headworks facility will be approximately 13 feet above existing grade and consist of an engineered metal enclosure supported on reinforced concrete columns or reinforced concrete walls. Based on the soils encountered in our borings, we recommend the concrete columns or concrete walls be supported on a reinforced concrete mat foundation seated 10 feet below existing grade and sized for a uniform allowable loading of 1,000 PSF when bearing on the natural brown or dark brown sandy lean clay.

The mat foundation should be prepared by removing all fill material, organic soils, and brown or dark brown sandy lean clay to a minimum depth of 10 feet. To provide a leveling course or work surface, a gravel pad consisting of one-inch diameter uniformly graded crushed rock or washed gravel with a minimum thickness of 12 inches may be placed on the exposed

sandy lean clay under the slab. The gravel should be a one-inch diameter uniformly graded crushed rock or washed gravel (ASTM No. 57 Stone or Approved Equal). A vapor barrier should be placed over the gravel blanket and below the mat slab. The exposed subgrade should be compacted in place to a minimum of 95% of the maximum dry density in accordance with TxDOT test method TEX-113-E. Soil moisture should be within 3% of optimum.

The below grade walls or concrete columns supporting the headworks basin should be backfilled with onsite low P.I. lean clay soils, flowable fill (CLSM), or Styrofoam fill to within 24 inches of finished grade. The final 24 inches should consist of a low P.I. (P.I. 3 to 18) granular Select Fill (see attached Select Fill Specifications). The lean clay or select fill backfill under the headworks basin should be compacted in 8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The backfill around the perimeter of the structure (outside) should consist of clean on-site soils or select fill with a minimum width of 36 inches to within 12 inches of the finished grade. These soils should be compacted in 8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The final 12 inches should be backfilled with a clay topsoil to prevent migration of water in the backfill and should be sloped away from the structure a minimum of 12 inches in the first 10 feet. The walls may be designed for an active pressure of 70 PCF and an at-rest pressure of 95 PCF using the simple hydrostatic formulas for the undrained condition. A passive pressure of 270 PCF may be applied to the portion of the wall footing seated into undisturbed soil. For nearby surcharge loads, an active coefficient of earth pressure (K_a) of 0.42, an at-rest coefficient of earth pressure (K_o) of 0.59, and a passive coefficient of earth pressure (K_p) of 2.37 may be used.

Flow Meter Vault

It is our understanding, as mentioned above, the Flow Meter Vault will be buried approximately 8 feet below existing grade and consist of reinforced concrete structure with metal hatches.

After excavating to the required depth below grade, we recommend a reinforced

concrete mat foundation be designed for a uniform allowable loading of 500 PSF when placed on the natural brown sandy lean clay. To provide a leveling course or work surface, a gravel pad consisting of one-inch diameter uniformly graded crushed rock or washed gravel with a minimum thickness of 12 inches may be placed on the exposed sandy lean clay under the slab. The gravel should be a one-inch diameter uniformly graded crushed rock or washed gravel (ASTM No. 57 Stone or Approved Equal). A vapor barrier should be placed over the gravel blanket and below the vault slab.

The subgrade should be prepared by removing all fill material and all brown, light brown, and dark brown sandy lean clay and any organics to the required vault depth. The exposed subgrade should be tamped with a vibratory plate compactor.

The below grade walls should be backfilled with onsite low P.I. lean clay soils or a low P.I. (P.I. 3 to 18) Select Fill (see attached Select Fill Specifications) with a minimum width of 36 inches to within 12 inches of the finished grade. The backfill should be compacted in 8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The final 12 inches should be backfilled with a clay topsoil to prevent migration of water in the backfill and should be sloped away from the structure a minimum of 12 inches in the first 10 feet. The walls may be designed for an active pressure of 70 PCF and an at-rest pressure of 95 PCF using the simple hydrostatic formulas for the undrained condition. A passive pressure of 270 PCF may be applied to the portion of the wall footing seated into undisturbed soil. For nearby surcharge loads, an active coefficient of earth pressure (K_a) of 0.42, an at-rest coefficient of earth pressure (K_o) of 0.59, and a passive coefficient of earth pressure (K_p) of 2.37 may be used.

Receiving Station Pads and Dumpster Pads

It is our understanding the Sludge Receiving Station pads and Dumpster Pad will consist of reinforced slabs on grade. Based on the soils encountered in our borings, we recommend the foundation consist of a reinforced concrete mat with thickened edge beams. The reinforced mat may be designed for a uniform allowable loading of 500 PSF when bearing on the compacted select fill. Thickened edge beams should extend a minimum of 18 inches

below the finished grade.

The equipment pads should be prepared by removing a minimum of the top 36 inches of existing soils, fill material, and all organic soils and replacing with a low P.I. (P.I. 3 to 18) Select Fill (see attached Select Fill Specifications). There should be a minimum of 36 inches of Select Fill below the mat slabs. The exposed subgrade and all fill should be compacted in 8-inch lifts to a minimum of 95% of the maximum dry density in accordance with TxDOT test method TEX-113-E. Soil moisture should be within 3% of optimum.

SPECIFIC FOUNDATION RECOMMENDATIONS

A. Headworks Facility

This foundation consists of an engineered metal enclosure supported on reinforced concrete columns or reinforced concrete walls supported on a reinforced concrete mat foundation.

1. Mat Foundation – The reinforced concrete mat bearing at a depth of approximately 10 feet below existing grade and in the brown or dark brown sandy lean clay may be designed for a uniform allowable bearing of 1,000 PSF. A 12-inch-thick gravel pad consisting of one inch diameter uniformly graded crushed rock or washed gravel (ASTM No. 57 Stone or Approved Equal) may be used under the slab.
2. Subgrade Preparation – Remove all fill material and all brown or dark brown sandy lean clay and any organics to a minimum depth of 10 feet. The exposed subgrade should be compacted in place to a minimum of 95% of the maximum dry density in accordance with TxDOT test method TEX-113-E. Soil moisture should be within 3% of optimum.
3. Wall Backfill – The below grade walls or concrete columns supporting the headworks basin should be backfilled with onsite low P.I. lean clay soils, flowable fill (CLSM), or Styrofoam fill to within 24 inches to the bottom of the proposed headworks basin. The final 24 inches should consist of a low P.I. (P.I. 3 to 18) granular Select Fill. The lean clay or select fill backfill under the headworks basin should be compacted in

8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The backfill around the perimeter of the structure (outside) should consist of clean on-site soils or select fill with a minimum width of 36 inches to within 12 inches of the finished grade. These soils should be compacted in 8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The final 12 inches should be backfilled with a clay topsoil to prevent migration of water in the backfill.

4. Inspection – Compaction of the subgrade and Select Fill material should be tested by the testing laboratory for proper compaction and moisture content. All footings should be inspected by the soils engineer to verify proper seating depth and bearing strata prior to concrete placement.
5. Drainage – The clay topsoil should be sloped away from the structure a minimum of 12 inches in the first 10 feet.
6. Excavation Side Slopes – The excavation should be sloped no steeper than 1(H) to 1(V).

B. Flow Meter Vault

This foundation consists of a reinforced concrete mat foundation.

1. Mat Foundation – The reinforced concrete mat bearing at a depth of approximately 8 feet below existing grade and on the brown or dark brown sandy lean clay may be designed for a uniform allowable bearing of 500 PSF. A 12-inch-thick gravel pad consisting of one inch diameter uniformly graded crushed rock or washed gravel (ASTM No. 57 Stone or Approved Equal) may be used under the slab.
2. Subgrade Preparation – Remove all fill material and all brown, dark brown, or light brown sandy lean clay and any organics to the required

meter vault depth. The exposed subgrade should be tamped with a vibratory plate compactor.

3. Wall Backfill – The below grade walls should be backfilled with onsite low P.I. lean clay soils or a low P.I. (P.I. 3 to 18) granular Select Fill. The lean clay or select fill should be compacted in 8-inch lifts to a minimum of 95% of the optimum dry density in accordance with TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum. The final 12 inches should be backfilled with a clay topsoil to prevent migration of water in the backfill.
4. Inspection – Compaction of the subgrade and Select Fill material should be tested by the testing laboratory for proper compaction and moisture content. All footings should be inspected by the soils engineer to verify proper seating depth and bearing strata prior to concrete placement.
5. Drainage – The clay topsoil should be sloped away from the structure a minimum of 12 inches in the first 10 feet.
6. Excavation Side Slopes – The excavation should be sloped no steeper than 1(H) to 1(V).

C. Receiving Station Pads and Dumpster Pads

This foundation consists of a reinforced concrete mat foundation with thickened edge beam.

1. Subgrade and Pad Preparation – Remove a minimum of the top 36 inches of existing soil and any organic soils and replacing with a low P.I. (P.I. 3 to 18) Select Fill. There should be a minimum of 36 inches of select fill below the slab. The exposed subgrade and all fill should be compacted in 8-inch lifts to a minimum of 95% of the maximum dry density in accordance with TxDOT test method TEX-113-E. Soil moisture should be within 3% of optimum.
2. Soil Bearing Pressure and Seating Depths – The reinforced mat may be

designed for a uniform allowable loading of 500 PSF when bearing on the compacted select fill. Thickened edge beams should extend a minimum of 18 inches below the finished grade.

3. Inspection – Compaction of the subgrade and Select Fill material should be tested by the testing laboratory for proper compaction and moisture content. All perimeter beams or footings should be inspected by the soils engineer to verify proper seating depth and bearing strata prior to concrete placement.
4. Drainage – Slope grounds away from foundation to provide rapid drainage.

SEISMIC DESIGN

The building should be designed and constructed to resist the effects of earthquake motions in accordance with the 2021 Edition of the International Building Code (IBC). This edition of the IBC references ASCE 7-16 for procedures on seismic design. Based on our test borings, we recommend seismic site soil classification “E – Soft Clay Soils”.

PAVEMENT DESIGN SECTION

It is our understanding new access driveway and parking area will also be constructed as part of this project. The pavement section will consist of either asphalt or reinforced concrete paving. The design is based on frequent heavily loaded truck traffic including 80,000-pound vehicles (fire/garbage truck). Below are the recommended paving thicknesses and construction considerations.

Access Drive and Parking Area – Heavily Loaded Vehicles

A. Asphalt Option

<u>Material</u>	<u>Thickness</u>
Crushed Limestone Base	14.0 inches
Hot Mix Asphaltic Concrete – Type C	3.0 inches

B. Reinforced Concrete Option

<u>Material</u>	<u>Thickness</u>
Crushed Limestone Base	8.0 inches
Reinforced Concrete	7.0 inches

PAVEMENT CONSTRUCTION CONSIDERATIONS

Pavement should be constructed and tested to meet the following requirements:

1. Reinforced Concrete – Concrete shall have a minimum compressive strength of 4,500 PSI at 28 days using 6 sacks of cement per cubic yard. Slump shall not exceed 6 inches. Control joints should be spaced a maximum of 15 feet on center for 6-inch-thick concrete or greater. Isolation joints should be used around lighting standards, area drains, and curb inlets, between pavement and sidewalks, and between buildings. Expansion (isolation) joints are not required except at fixed objects or structures and unsymmetrical areas where joint grids are difficult. Reinforcing steel should consist of No. 3 bars on 18-inch centers, each way, or an equivalent wire mesh. The reinforcing steel will help to hold edges of uncontrolled cracks together. Saw cut contraction joints should be at least ¼ of the slab depth or 1 inch deep when using early entry saws and cut as soon as concrete is hardened. For unsealed joints, the width is 1/10-inch to 1/8-inch. Joint sealant manufacturers’ recommendations should be followed for the depth and width of sealed joints. For more information on concrete pavement and joint design, please refer to ACI 330R-01 “Guide for Design and Construction of Concrete Parking Lots”.
2. Hot Mix Asphaltic Concrete (Type C) – All materials shall be subject to the approval of the engineer when tested in accordance with the specifications and test methods outlined in City of Austin Standard Specification Item Nos. 301S, 302S, and 340S. Asphalt shall be compacted to a minimum of 91% and a maximum of 96% in accordance

with TxDOT test method TEX-207-F/TEX-227-F.

3. Crushed Limestone Base – The crushed limestone base shall conform to City of Austin Standard Specifications Item 210S and shall be obtained from an approved source and shall be free of all deleterious materials. The crushed stone base shall be compacted to a density to at least 100% of the maximum dry density as determined by TxDOT test method TEX-113-E. Soil moisture should be within 3% of optimum. The base material should extend at least 18 inches behind the curb line.
4. Compacted Subgrade – The pavement subgrade should be prepared by removing the top 18 inches of existing fill material, dark brown sandy lean clay, or brown sandy lean clay and all organic materials. The exposed subgrade should be compacted to at least 95% of the maximum dry density as determined by TxDOT test method TEX-113-E. Moisture content should be within 3% of optimum.
5. Testing and Inspection – All subgrade preparation and base compaction should be inspected and tested by an Engineering/Testing Laboratory. The minimum testing frequency for subgrade and base densities is one test per 2,000 square feet or a minimum of 3 tests per site visit per lift. Slump tests, temperature measurement, air content and cylinders made for compressive strengths tests should be made during concrete placement. Grab samples of all asphalt laid shall be taken by the testing laboratory for extraction, gradation and mix compliance. Cores of the asphalt shall be taken as directed by the laboratory to determine the thickness and density.
6. Drainage – The pavement shall be sloped or crowned for good drainage.

QUALITY CONTROL PROGRAM

We recommend a Quality Control Program be implemented by the Owner or Architect to inspect the construction of the foundation and framing to verify all work is being performed

in accordance with the approved engineered drawings and specifications. The inspections should include (but not be limited to) preparation of the building pad subgrade and placement and compaction of all fill material to verify proper density and moisture content. Inspections should be conducted on all foundation beams, piers and footings to verify proper bearing and seating depth. Where drilled piers are used, or driven piles are installed then full-time inspection is recommended to verify proper bearing capacity is achieved. Pre-pour inspections should be made in order to verify proper placement of the reinforcement. All concrete should be inspected during placement for proper slump, air-content and temperature. Test cylinders should be made to verify compressive strength. French drains, under-drains, waterproofing and capillary barriers should be inspected prior to backfilling. All plumbing should be leak tested both before the slab is poured and after concrete is placed. Framing should be inspected to verify all floor trusses and roof members (trusses) are placed in accordance with the approved drawings. Anchor bolts and wind bracing should also be inspected. Welding and bolting on structural steel framing and connections should be inspected by a certified welding inspector. Reports of all inspections and tests should be forwarded to the Owner, Architect, Engineer, and Contractor. We can provide these services upon request.

LIMITATIONS

This geotechnical report has been prepared for the exclusive use of our client and the client's authorized design team in preparing the appropriate design and construction documents for this project. It is not intended for any other person's benefit. This report is based on specific project information provided by the client and/or design team as described herein. Any changes in the structure, loadings, building footprint, configuration, finished floor elevations or grades should be brought to our attention so that we may determine what impact the change may have on our conclusions and recommendations. We expect to review the final grading plan and structural drawings to verify our recommendations are properly interpreted.

Our analyses and recommendations are based on subsurface conditions encountered in our borings. Variations in soil conditions may occur between borings. If during construction the soil strata are found to differ from that reported here, we should be notified immediately.

This report contains soil-boring logs which are for the purpose of arriving at foundation design criteria and are not to be used by the excavation and/or pier drilling contractor in arriving at rock hardness or rock depth.

The presence or absence of water in our borings might not represent the groundwater conditions under all seasonal conditions. No long-term groundwater monitoring was performed in the preparation of this report.

This report is based on conditions that exist on the site at the time of our investigation. Changes to the project, the building site or adjacent properties may affect the reliability of our report. We expect the structures addressed in our report to be started or substantially completed within approximately 24 months of the issuance of our report. The geotechnical report and specific recommendations will need to be re-evaluated if building construction is delayed by more than 24 months from the time of our report. Our report should not be used if the elapsed time of substantial completion exceeds 5 years without review or written consent from Holt Engineering, Inc.

The procedures, tests and recommendations of this investigation and report have been conducted and furnished in accordance with generally accepted professional engineering practices in the field of foundations, engineering soil mechanics and engineering geology. No other warranty is either expressed or implied.

APPENDIX
ITEM 1

SELECT FILL SPECIFICATIONS

SELECT FILL

Select fill as called for on the plans shall meet one of the following requirements (% Passing or % Retained) as verified by the Engineer when properly slaked and tested by standard laboratory methods:

	<u>% Retained</u>	<u>Or</u>	<u>% Passing</u>
2 1/2" Screen	0%		100%
1 1/2" Screen	0% - 25%		75% - 100%
7/8" Screen	15% - 55%		45% - 85%
No. 4 Sieve	45% - 75%		25% - 55%
No. 40 Sieve	60% - 90%		10% - 40%

Material passing the No. 40 sieve shall have a minimum plasticity index of 3 and shall not have a plasticity index of greater than 18.

COMPACTION OF FILL

Select fill shall be placed in lifts not to exceed 8 inches loose measure and compacted to 95% or greater of the maximum dry density as determined in accordance with TxDOT test method TEX 113E. Field densities shall be checked in accordance with ASTM D-6938 (Nuclear Gauge) to ensure compliance with project specifications.

Select fill should be processed and moisture conditioned as needed to meet requirements of project moisture specifications.

Samples of fill shall be furnished to the testing laboratory seven days prior to installation to permit time for specification compliance, inspection, and approval.

APPENDIX
ITEM 2



PROJECT LOCATION PLAN
HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS
2210 FM 973
AUSTIN, TEXAS

File No. 08-21723



Not to Scale

APPENDIX
ITEM 3



GENERALIZED BORING LOCATION PLAN
 HORNSBY BEND BIOSOLIDS MANAGEMENT PLANT HEADWORKS
 2210 FM 973
 AUSTIN, TEXAS

N

 Not to Scale

File No. 08-21723

APPENDIX
ITEM 4

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-01

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-24-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
0 - 1.5			7 1/2" Concrete							
1.5 - 2.5			6 1/2" Base Fill - Unclassified crushed limestone							
2.5 - 5.0			Fill - Unclassified dark brown silty sandy clay	5		13.1		24	9	70.5
5.0 - 10.0			-- Pocket penetrometer = 2.5 tsf SANDY LEAN CLAY (CL), dark brown, sandy, soft			15.5		31	15	76.4
10.0 - 15.0			SANDY LEAN CLAY (CL), brown, silty, w/ fine sands, soft	6						
15.0 - 20.0				6		13.3		23	8	62.7
20.0 - 25.0			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, becoming less sandy w/ depth, soft	5		16.2		28	13	71.5
25.0 - 30.0					2.1	21.6	97.5	28	21	94.3
30.0 - 35.0				5						
35.0 - 40.0					1.4	17.3	103.1	29	14	89.2
40.0 - 45.0			-- Pocket penetrometer = 1.3 tsf	11						

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-01

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-24-23 BORING DEPTH : 50.0 FEET

DRILLER : Will McGee WATER LEVEL : ELEVATION :

DRILLING METHOD : 4" Flight Augers LAT.: LONG.:

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
50			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, becoming less sandy w/ depth, soft(Continued)	4						
50			Terminated @ 50 feet							
55										
60										
65										
70										
75										
80										
85										
90										

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-02

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-23-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
0 - 5			Fill - Unclassified light brown fine sandy silt	32						
5 - 10			Fill - Unclassified brown & dark brown fine slightly clayey silty sand	10						
10 - 15			SANDY LEAN CLAY (CL), brown, w/ fine sandys, soft	4						
15 - 20			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft	4						
20 - 25			-- Pocket penetrometer = 2.5 tsf	6						
25 - 30			-- Pocket penetrometer = 1.5 tsf	3						
30 - 35				2						
35 - 40										
40 - 45										

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-02

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-23-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
50			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft(Continued)	2						
50			Terminated @ 50 feet							
55										
60										
65										
70										
75										
80										
85										
90										

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-03

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-22-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
0 - 5			Fill - Unclassified brown fine sandy silt	31		6.0		25	10	71.3
5 - 10			Fill - Unclassified brown sandy clay	6		11.4		25	10	74.7
10 - 15			Fill - Unclassified silty clay, w/ pea gravel							
10 - 15			SANDY LEAN CLAY (CL), dark brown, silty, becoming lighter & more silty w/ depth, soft	2		15.3		26	11	70.4
15 - 20			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft							
15 - 20			-- Pocket penetrometer = 2.5 tsf		1.4	12.1		21	7	58.4
20 - 25				7						
25 - 30					0.9	19.3	93.6	30	15	84.6
30 - 35				7						
35 - 40										
35 - 40			-- Pocket penetrometer = 2.0 tsf -- 35.0' - 50.0' - slightly moist							
40 - 45				2		21.3		26	11	81.8

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-03

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-22-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

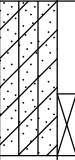
ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
50			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft(Continued)	2						
50			Terminated @ 50 feet							
55										
60										
65										
70										
75										
80										
85										
90										

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-04

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-22-23

BORING DEPTH : 50.0 FEET

DRILLER : Will McGee

WATER LEVEL :

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
0 - 5			SANDY LEAN CLAY (CL), brown, silty, w/ fine sands, firm	25		6.6		26	11	75.2
5 - 10			SANDY LEAN CLAY (CL), light brown, very silty, soft	11		8.1		29	14	75.4
10 - 15				2		13.0		24	9	75.8
15 - 20				5						
20 - 25			LEAN CLAY (CL), brown, slightly silty, sandy, soft	3						
25 - 30				7						
30 - 35			-- Pocket penetrometer = 2.7 tsf							
35 - 40				7						
40 - 45			-- Pocket penetrometer = 2.0 tsf							
45 - 50				4						

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**


LOG OF BORING B-04

NOTES : Hole dry upon completion of drilling operation.

DATE DRILLED : 08-22-23 BORING DEPTH : 50.0 FEET

DRILLER : Will McGee WATER LEVEL : ELEVATION :

DRILLING METHOD : 4" Flight Augers LAT.: LONG.:

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
50			LEAN CLAY (CL), brown, slightly silty, sandy, soft(Continued) -- 45.0' - 50.0' - slightly moist	2						
50			Terminated @ 50 feet							
55										
60										
65										
70										
75										
80										
85										
90										

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-05

NOTES : Groundwater level at 61.5 feet.

DATE DRILLED : 08-23-23

BORING DEPTH : 80.0 FEET

DRILLER : Will McGee

WATER LEVEL : 61.5 FEET

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

LONG.:

LOG OF BORING 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ, HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
0 - 5			Fill - Unclassified light brown fine sandy silt							
5 - 10			Fill - Unclassified brown fine slightly clayey sandy silt	32						
10 - 15			SANDY LEAN CLAY (CL), brown, slightly silty, w/ fine sandy clayers, soft	11		10.8		27	12	75.6
15 - 20										
20 - 25			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft	2						
25 - 30										
30 - 35										
35 - 40			-- 35.0' - 50.0' - slightly moist							
40 - 45				7		20.6		34	18	90.8
45 - 80				3						

**HORNSBY BEND BIOSOLIDS PLANT HEADWORKS
FM 973 & PLATT LANE
AUSTIN, TEXAS**

LOG OF BORING B-05

NOTES : Groundwater level at 61.5 feet.

DATE DRILLED : 08-23-23

BORING DEPTH : 80.0 FEET

DRILLER : Will McGee

WATER LEVEL : 61.5 FEET

ELEVATION :

DRILLING METHOD : 4" Flight Augers

LAT.:

















LONG.:

LOG OF BORING - 08-21723 - HORNSBY BEND PLANT HEADWORKS, FM 973, PLATT LN., ATXC.GPJ HOLT ENGINEERING GDT 10/5/23

DEPTH (feet)	GRAPHIC LOG	SAMPLE	SOIL DESCRIPTION	BLOWS PER FOOT	UCC STR. (TSF)	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT (%)	PLASTICITY INDEX	% PASSING #200 SIEVE
50			LEAN CLAY (CL), brown, slightly silty, sandy, w/ fine sands, soft(Continued)	2						
55			LEAN CLAY (CL), light brown, slightly silty, sandy, w/ fine sands, moist, soft	2						
60			SAND, brown, coarse, medium dense Water level 61.5 feet	12						
65				15						
70				18						
75			SHALE, gray, stiff	50/6"						
80			Terminated @ 80 feet	50/4"						
85				50/3"						
90										

BORING LOGS – TERMS & SYMBOLS

SOIL TYPES

 Silt	 Clay	 Sand	 Silty Clay or Clayey Silt
 Silty Sand	 Clayey Sand	 Gravel	 Shale
 Limestone	 Rock/Fragments	 Crushed limestone base	 Tan Limestone w/Interbedded Silt Layers
 Silty clay w/Gravel	 Asphalt	 Sandstone	 Concrete

SAMPLER TYPES

 Standard Penetration Test	 Rock Core	 Seamless Push Shelby Tube	 Grab Sample
---	---	---	---

PARTICLE SIZE (ASTM D2487)

Boulders	>12 in.	Coarse Sand	5 mm – 2 mm	Silt	0.075 mm – 0.005 mm
Cobbles	12 in. – 3 in.	Medium Sand	2 mm – 0.4 mm	Clay	< 0.005 mm
Gravel	3 in. – 5 mm	Fine Sand	0.4 mm – 0.075 mm		

STRENGTH OF COHESIVE SOILS

DENSITY OF GRANULAR SOILS

CONSISTENCY	COMPRESSIVE STRENGTH (TSF)	NUMBER OF BLOWS PER FT., N	RELATIVE DENSITY
Very Soft	< 0.25	0 – 4	Very Loose
Soft	0.25 to 0.50	4 – 10	Loose
Firm	0.50 to 1.0	10 – 30	Medium Dense
Stiff	1.0 to 2.0	30 – 50	Dense
Very Stiff	2.0 to 4.0	Over 50	Very Dense
Hard	> 4.0		

Structure Description (ASTM D2488)

Percentages of Sand & Gravel (ASTM D2488)

Stratified	Alternating layers of varying material or color with layers at least 6 mm thick	Trace	< 5%
Laminated	Alternating layers of varying material or color with the layers less than 6 mm thick	Few	5% to 10%
Fissured	Breaks along definite planes of fracture with little resistance to fracturing	Little	15% to 25%
Slickensided	Fracture planes appear polished or glossy, sometimes striated	Some	30% to 45%
Blocky	Cohesive soil that can be broken down into small angular lumps which resist further breakdown	Mostly	50% to 100%

Lensed Inclusion of small pockets of different soils, such as small lenses of sand scattered through a mass of clay

Homogeneous Same color and appearance throughout

Criteria for Describing Moisture Conditions (ASTM D2488)

Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

LUMP SUM BID FORM

City Manager
Austin, Texas

The undersigned, in compliance with the Invitation for Bids for construction of the following Project for the city of Austin, Texas:

Solicitation No.:	CLMC1170
Project:	Hornsby Bend Biosolids Management Plant Headworks Improvements
CIP ID No.:	3164.075

Having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated.

BASE BID	\$
Base Bid includes Trench Excavation Safety Systems		

- The "Base Bid" amount must be used in the MBE/WBE Compliance Plan Summary Page to determine subcontractor participation levels for the established MBE/WBE procurement goals.
- The "Base Bid" amount becomes the Bidder's "TOTAL BID" if allowances and/or alternates are not included.

TRENCH EXCAVATION SAFETY SYSTEMS UNIT PRICES: The undersigned Bidder agrees that the Base Bid Price for the Work, listed above, includes the following amounts in the Bid for excavation safety systems as specified in Item Number 509S of the Specifications and in case of an authorized adjustment to the scope of Work, the following unit price(s) will be used in adjusting the Contract Amount:

Item	Quantity	Unit	Item Description	Unit Price	Amount
509S-1	1000	LF	Trench Excavation Safety Protection Systems (all depth)	\$	\$

ALLOWANCES:

Allowance No. 1:	Soil/Groundwater Contamination or Unforeseen Yard Utilities	\$50,000.00
Allowance No. 2:	Portable Generator	\$300,000.00
Allowance No. 3:	CoGen Building Hoist Replacement	\$20,000.00
Allowance No. 4:	Security Hardware	\$300,000.00
Allowance No. 5:	Site Access (Security)	\$5,000.00
Allowance No. 6:	MS-1 Maintenance	\$20,000.00

Bidding Requirements, Contract Forms and Conditions of the Contract

Allowance No. 7:	Section 17600 PLC Training	\$50,000.00
Allowance No. 8	Section 17620 Ethernet Switches	\$20,000.00
Allowance No. 9	Section 17620 Communication Equipment Training	\$50,000.00
Allowance No. 10	Section 17640 Workstations & Computers	\$15,000.00
Allowance No. 11	Delivery Signage	\$5,000.00
Allowance No. 12	FEB LD Panels	\$50,000.00
Allowance No. 13	Disassembly of Temporary Thickening System	\$1,000,000.00
SUBTOTAL ALLOWANCES		\$1,885,000.00

BASE BID PLUS ALLOWANCES:		\$
----------------------------------	--	----

ALTERNATES:

ALTERNATE NO. 1:	Galvanized Steel for Canopy Structural Members	\$
------------------	--	----

TOTAL BID	\$
------------------	-------	----

Includes Base Bid plus Subtotal Allowances and Alternate 1, (if accepted at Contract Execution)

Notes:

1. For a more detailed explanation of Bid alternates, see Section 01030.
2. For a more detailed explanation of Bid allowances, see Section 01020.
3. **MINIMUM WAGES:** Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.

BID GUARANTY: A Bid guaranty must be enclosed with this Bid, as required in Section 00020, in the amount of not less than five percent (5%) of the total Bid. Following the Bid opening, submitted Bids may not be withdrawn for a period of one hundred twenty (120) Calendar Days. Award of Contract will occur within this period, unless mutually agreed between the parties. The Bid guaranty may become the property of the OWNER, or the OWNER may pursue any other action allowed by law, if:

- Bidder withdraws a submitted Bid within the period stated above;
- Bidder fails to submit the required post Bid information within the period specified in Section 00020 or 00100, or any mutually agreed extension of that period; or
- Bidder fails to execute the Contract and furnish the prescribed documentation (bonds, insurance, etc.) needed to complete execution of the Contract within five (5) Working Days after notice of award, or any mutually agreed extension of that period.

GEOTECHNICAL BASELINE ACKNOWLEDGEMENT: The undersigned Bidder certifies that the Bidder has read and understands the Geotechnical Data Report and all other geological and geotechnical information and data as provided in the Contract Documents, including all Addenda.

TIME OF COMPLETION: The undersigned Bidder agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to substantially complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within eight hundred and ten (810) Calendar Days.

If a Substantial Completion date has been specified, the Bidder further agrees to reach Final Completion within ninety (90) Calendar Days after Substantial Completion as required by the Project Manual, Drawings and Addenda for the work.

The Bidder further agrees that should the Bidder fail to substantially and finally complete the Work within the number of days indicated in the Bid or as subsequently adjusted, Bidder shall pay the liquidated damages for each consecutive day thereafter as provided below; unless the OWNER elects to pursue any other action allowed by law.

WAIVER OF ATTORNEY FEES: In submitting the Bid, in consideration for the waiver of the Bidder's right to attorney's fees by the OWNER, the Bidder knowingly and intentionally agrees to and shall waive the right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.

LIQUIDATED DAMAGES: The Bidder understands and agrees that the timely completion of the described Work is of the essence. The Bidder and OWNER further agree that the OWNER's actual damages for delay caused by failure to timely complete the Project are difficult, if not impossible to measure. However, with respect to the additional administrative and consultant costs to be incurred by OWNER, the reasonable estimate of such damages has been calculated and agreed to by OWNER and Bidder.

Therefore, the Bidder and the OWNER agree that for each and every Calendar Day the Work or any portion thereof, remains incomplete after the Substantial Completion date as established by the above paragraph, "Time of Completion", payment will be due to the Owner in the amount of two thousand, six hundred and sixty dollars (\$2,660) per Calendar Day as liquidated damages, not as a penalty, but for delay damages to the OWNER.

If both Substantial and Final Completion dates have been specified, the Bidder and the OWNER further agree that for each and every Calendar Day the Work or any portion thereof, remains incomplete after the Final Completion date as established by the above paragraph, "Time of Completion", payment will be due to the OWNER in the amount of one thousand, nine hundred and fifty dollars (\$1,950) per Calendar Day as liquidated damages, not as a penalty, but for delay damages to the OWNER. Such amount shall be deducted by the OWNER from any Contract payment due.

In the event of a default or breach by the CONTRACTOR and demand is made upon the surety to complete the project, in accordance with the Contract Documents, the surety shall be liable for liquidated damages pursuant to the Contract Documents in the same manner as the CONTRACTOR would have been.

MINOR INFORMALITY: OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bidders).

Bidding Requirements, Contract Forms and Conditions of the Contract

ADDENDUM: The undersigned acknowledges receipt of the following addenda:

Addendum No. 1 dated		Received	
Addendum No. 2 dated		Received	
Addendum No. 3 dated		Received	
Addendum No. 4 dated		Received	

BID DOCUMENT EXECUTION AND ACKNOWLEDGEMENT: The undersigned Bidder certifies that the Bidder has read and understands Section 00020 Invitation for Bids, Section 00100 Instructions to Bidders, and all other requirements applicable to the Bidding process provided in the Bid and Contract Documents.

BIDDER’S CERTIFICATION OF NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING (Section 00440): The undersigned Bidder, by its signature, represents and certifies that it has read and can affirmatively swear and subscribe to the statements in Section 00440 Non-Collusion, Non-Conflict of Interest, and Anti-Lobbying Certification. If the Bidder cannot affirmatively swear and subscribe to any of the statements in Section 00440, Bidder represents and certifies that it has provided a detailed written explanation with its Bid on separate pages annexed hereto. The undersigned Bidder further certifies that it has not in any way directly or indirectly had communication restricted in the City Code Chapter 2-7, Article 6 (Anti-Lobbying and Procurement) during the No-Lobbying Period as defined in Chapter 2-7.

BIDDER’S CERTIFICATION AS TO NONRESIDENT PROVISIONS: Bidder must provide the following information in accordance with Vernon’s Texas Statutes and Codes Annotated Government Code § 2252.002, as amended. A Texas Resident Bidder is a bidder whose principal place of business is in Texas and includes a Contractor whose ultimate parent company or majority owner has its principal place of business in Texas. The undersigned **Bidder certifies that Bidder is a resident of _____** (*Bidder must write in the blank the state of which Bidder is a resident*).

Bidder will initial the blank set forth below to represent and certify that the Bidder has completed, executed, and enclosed the corresponding Bid Documents with the Bid.

____ MBE/WBE Compliance Document

____ One copy of Total Bid Form if Bid is submitted electronically via Austin Finance Online

____ Bid Guaranty

The undersigned, by their signature, represents that they are submitting a binding offer and are authorized to bind the respondent to fully comply with the solicitation documents contained herein. The Respondent, by submitting and signing below, certifies that they have received and read all sections of the entire solicitation document including all revisions, addenda and documents incorporated by reference, and agree to be bound by the terms therein.

Bidding Requirements, Contract Forms and Conditions of the Contract

Corporate Secretary, *if Bidder is a Corporation

Bidder

Email for Secretary

Authorized Signature/Print Name

(Seal)

Title

Date

Address

Telephone Number / FAX Number

Email for Person Signing Bid

Email for Bidder's Primary Contact Person

END

TOTAL BID FORM

Solicitation No.:	
Project:	
Bidder:	
Total Bid Amount: (includes Base Bid plus any Allowances or Alternates shown in Section 00300)	

Notes:

1. This form will be displayed publicly in Austin Finance Online approximately one hour after the solicitation closes.
2. In the case of discrepancies between this form and Section 00300, Section 00300 takes precedence.

STATEMENT OF BIDDERS EXPERIENCE

Section 00400

Project Name:	Hornsby Bend Biosolids Management Plant Headworks Improvements
Name of Bidder:	
Solicitation Number:	CLMC1170

Bidder must complete all Attachments to Section 00400 clearly and comprehensively. If necessary, responses may be continued on separately attached sheets.

To be considered a responsive and responsible bidder, the apparent three (3) low Bidders must complete and submit within three (3) working days of notification of low bidder status Attachments A through I in accordance with Article 11, Section 00100. Contractor Performance Evaluations for previous work with the City will be included in the assessment of the Bidder's experience. Any information in Attachments A through I and in the Contractor's Performance Evaluations that indicates the Bidder or a "Subcontractor" is not responsible or that might negatively impact a Bidder's ability to complete the Work within the Contract Time and for the Contract Price may result in the Bid being rejected.

The Bidder is responsible for the accuracy and completeness of all of the information provided by the Bidder or a proposed Subcontractor in response to this Invitation for Bids.

POST-BID SUBMITTALS

ATTACHMENT A – BIDDER’S INFORMATION

ATTACHMENT B – EXPERIENCE REQUIREMENTS (GENERAL CONTRACTOR)

ATTACHMENT C – PROJECT MANAGER AND SUPERINTENDENT EXPERIENCE

ATTACHMENT D – EXPERIENCE REQUIREMENTS (SPECIFIC CONSTRUCTION OR TECHNICAL EXPERIENCE)

ATTACHMENT E – AVAILABLE EQUIPMENT

ATTACHMENT F – AVAILABLE WORKFORCE

ATTACHMENT G – CURRENT PROJECTS

ATTACHMENT H – COMPLETED PROJECTS

ATTACHMENT I – BIDDER’S AUTHENTICATION

**ATTACHMENT A
BIDDER'S INFORMATION**

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Solicitation Number:	CLMC1170
-----------------------------	----------

A.	Name of Bidder:	
B.	Bidder's Permanent Address:	
C.	Bidder's Phone Number:	
D.	Number of years in business under current company name:	

(Note: Bidder must have been in existence for a minimum of one (1) year under its current company name. Changes in company name during the experience period are acceptable, if the continuity of the company can be demonstrated. Attach separate documentation, if applicable.)

If Bidder answers "Yes" for any of questions E through H, Bidder must attach separate sheets with a brief description or explanation of the answer and provide pertinent contact information (parties' names, addresses and telephone numbers).

E.	Has the Bidder ever defaulted on a contract?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
F.	Are there currently any pending judgements, claims, or lawsuits against the Bidder?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
G.	Does Bidder currently have any pending claims, judgements or lawsuits against any prior client?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
H.	Is the Bidder or its principals involved in any bankruptcy or reorganization proceedings?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

ATTACHMENT B
EXPERIENCE REQUIREMENTS (GENERAL CONTRACTOR)

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Solicitation Number:	CLMC1170
-----------------------------	----------

GENERAL CONTRACTOR EXPERIENCE:

Bidder must list and describe Bidder's (not proposed subcontractors') construction experience as a general contractor for a minimum of three (3) successfully completed projects of comparable size, scope and complexity to the Work described in the Contract Documents. Bidder should refer to the Work description in Section 01010 Summary of Work and Section 00020/00020 IDIQ to determine what is reasonably comparable. Comparability requirements may be spread among the three (3) projects submitted, e.g. One Project may demonstrate comparable size, another Project may demonstrate comparable scope and another may demonstrate comparable complexity. Decisions on "comparability" are at the complete discretion of the OWNER.

Bidder must have completed the projects within the past ten (10) years.

Bidding Requirements, Contract Forms and Conditions of the Contract

Attention Bidder: Duplicate this form for each of the three (3) projects.

PROJECT NO. _____		
Name of Project:		
Location:		
OWNER's Name and Address:		
OWNER's Contact Person (Print):		
Phone		
Initial Contract Price:		
Final Contract Price:		
Contract Start Date: <i>(Date of Notice to Proceed)</i>		
Contract Time:	Calendar Days:	Working Days:
Contract Substantial Completion Date:		
Actual Substantial Completion Date:		
If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each:		
Project Description and why it is comparable to this Contract:		

ATTACHMENT C
PROJECT MANAGER & SUPERINTENDENT EXPERIENCE

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Name of Bidder:	
Solicitation Number:	CLMC1170

Bidder must attach resumes for the Project Manager and Superintendent who will be assigned to this project. The resumes must demonstrate that these individuals have worked on at least three (3) similar, successfully completed projects in the capacity of Project Manager or Superintendent, or other responsible supervisory capacity, as applicable, during the last 10 years.

Project Manager (name): _____

Superintendent (name): _____

Note: Attach Resumes & Experience

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

SPECIFIC CONSTRUCTION EXPERIENCE (GENERAL CONTRACTOR OR SUBCONTRACTOR PERFORMING THE WORK)

Bidder must provide the following project history information for each Construction Experience requirement listed below. OWNER may in its reasonable discretion deem the provided experience information insufficient and reject the Bid.

For each Construction Experience item listed below, list and describe the applicable Construction Experience for a minimum of three (3) successfully completed projects of comparable size, scope, and complexity to the Work described for this project. Comparability requirements may be spread among the three (3) projects per item submitted, e.g. One Project may demonstrate comparable size, another Project may demonstrate comparable scope and another may demonstrate comparable complexity. Decisions on "comparability" are at the complete discretion of the OWNER.

The Work must have been performed within the past ten (10) years.

Bidder must provide all requested information in a complete, clear, and accurate manner. If necessary, additional information may be provided on separate attached sheets. Failure to provide any requested information may cause the Bid to be rejected by OWNER as non-responsive.

If the Bidder proposes to fulfill any specific construction experience requirement with subcontracted resources, the applicable Subcontractor must be included in the Bidder's Original MBE/WBE Compliance Plan. Failure to include subcontractors on the MBE/WBE Compliance Plan may render your bid non-responsive.

SPECIFIC CONSTRUCTION EXPERIENCE ITEMS REQUIRED:

- ITEM 1. Furnish and/or installation of Facility Improvements (Mechanical)
- ITEM 2. Furnish and/or installation of Facility Improvements (Electrical)
- ITEM 3. Instrumentation Facility Improvements – Includes experience in providing, integrating, installing, testing and start-up similar system as those required for this project, in addition to the requirements specified in Section 17000 – Process Instrumentation and Control System.
- ITEM 4. Extensive electrical power systems renovation experience working in active water treatment plants or wastewater treatment plants with close and careful coordination with owner, and, if an existing plant, continuous coordination of power system outages and system down time with owner and provision of means to maintain load energization, including such loads as control systems, security systems, process equipment, and lighting systems, to assure owner's continuous use and operation of the plant per owner requirements. The power systems renovation experience shall include furnishing and installation of new Medium Voltage 5KV or 15KV class Switchgear with vacuum circuit breakers and/or motor operated load break switches that are AC or DC controlled. In addition, the power

Bidding Requirements, Contract Forms and Conditions of the Contract

systems renovation experience shall also include furnishing and installation of new 600V class distribution equipment.

The Bidder shall complete and duplicate the following specific Construction Experience Form as required to provide the requested documentation for a minimum of three (3) successfully completed projects for each of the above specific Construction Experience requirements. A project may demonstrate experience with multiple experience items.

Bidding Requirements, Contract Forms and Conditions of the Contract

CONSTRUCTION EXPERIENCE DOCUMENTATION FORM			
EXPERIENCE ITEM NUMBER:			
Project Number:			
Does Bidder plan to self-perform this work?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
If "NO", provide the following Subcontractor's information:			
Company's Address:			
Permanent Address:			
Phone No.			
# of years Subcontractor has been in business under current company name:			
Name of Project:			
Location:			
OWNER's Name:			
OWNER's Address:			
OWNER's Contact Person (Print):			
Phone/Fax No.:			
Initial Contract Price:			
Final Contract Price:			
Contract Start Date: <i>(Date of Notice to Proceed)</i>			
Contract Time:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Calendar Days:</td> <td style="width: 50%;">Working Days:</td> </tr> </table>	Calendar Days:	Working Days:
Calendar Days:	Working Days:		
Contract Substantial Completion Date:			
Actual Substantial Completion Date:			
If contract time extensions were added to the contract as a result of Bidder's responsibilities, provide a short explanation of each:			
Project Description and why it is comparable to this Contract:			

**ATTACHMENT E
AVAILABLE EQUIPMENT LIST**

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Name of Bidder:	
Solicitation Number:	CLMC1170

Provide a list of equipment that is available to the CONTRACTOR or its Subcontractor(s) and is specifically intended to be used on the Work under this Contract. Also indicate whether the equipment is owned or will be leased by the CONTRACTOR and/or Subcontractor(s).

<u>EQUIPMENT</u>	<u>OWNED OR LEASED</u>	<u>COMMITTED TO ANOTHER PROJECT?</u> (Yes / No)	<u>AVAILABLE / RELEASE DATE</u>

Use additional pages, as necessary

**ATTACHMENT F
AVAILABLE WORKFORCE**

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Name of Bidder:	
Solicitation Number:	CLMC1170
CIP ID Number:	3164.075

Provide a list of the available workforce for the various disciplines and crafts required for the Work on this Project, including the number of work crews, and number and worker classification for each equipment operator, mechanic, and laborer for that portion of the Work that Bidder will actually perform.

Number of Anticipated Work Crews: _____

DISCIPLINE OR CRAFT	NO. OF EMPLOYEES	COMMITTED TO ANOTHER PROJECT? (Yes / No)	AVAILABLE / RELEASE DATE
Professional (specify)			
Superintendent			
Technical (specify)			
Skilled Workers (specify)			
Semiskilled Workers (specify)			
Equipment Operators (list)			
Other			

Use additional pages, as necessary

CURRENT PROJECT LISTING (INCLUDING ALL CITY OF AUSTIN PROJECTS)

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Name of Bidder:	
Solicitation Number:	CLMC1170
CIP ID Number:	3164.075

Provide a list of all current projects, including all City of Austin projects. Include the following for all jobs that Bidder is currently committed to or has currently underway: brief statement regarding the job type; estimated project duration; project contact; and project description.

Name of Project:		
Location:		
Type of Job:		
City of Austin Job?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Project Start Date		
Estimated Completion Date:		
Project Contact:		
Brief Description:		

Name of Project:		
Location:		
Type of Job:		
City of Austin Job?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Project Start Date		
Estimated Completion Date:		
Project Contact:		
Brief Description:		

ATTACHMENT H
COMPLETED PROJECTS (INCLUDING ALL CITY OF AUSTIN PROJECTS)

Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status.

Name of Bidder:	
Solicitation Number:	CLMC1170
CIP ID Number:	3164.075

Provide a list of all completed projects, including all City of Austin projects that Bidder has completed in the past five (5) years by calendar year (or life of company if less than five (5) years). Include the following: a brief statement regarding the job type, the estimated project duration, project contact, and project description.

Calendar Year of _____

Name of Project:		
Location:		
Type of Job:		
City of Austin Job?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Project Duration:		
Project Contact:		
Brief Description:		

Name of Project:		
Location:		
Type of Job:		
City of Austin Job?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Project Duration:		
Project Contact:		
Brief Description:		

Use additional pages as necessary to achieve a representative listing covering 5 years

**ATTACHMENT I
BIDDERS AUTHENTICATION**

(Attention Bidder: Complete and return within three (3) days of notification of the three (3) low bidders' status)

Solicitation Number:	CLMC1170
CIP ID Number:	3164.075

THE STATE OF TEXAS
COUNTY OF TRAVIS

I certify that my responses and the information provided in Attachments A-H are true and correct to the best of my personal knowledge and belief and that I have made no willful misrepresentations in this Section, nor have I withheld any relevant information in my statements and answers to questions. I am aware that any information given by me in this Section may be investigated and I hereby give my full permission for any such investigation and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my bid to be rejected.

Bidder's full name and entity status:

Company's Name

Signature, Authorized Representative of Bidder

Title

Date

END

CERTIFICATE OF NON-SUSPENSION OR DEBARMENT

Section 00405

Solicitation Number: _____ (to be filled in by Contractor)

The City of Austin is prohibited from contracting with or making prime or sub-awards to parties that are suspended or debarred or whose principals are suspended or debarred from Federal, State, or City of Austin Contracts. Covered transactions include procurement contracts for goods or services equal to or in excess of \$25,000.00 and all non-procurement transactions. This certification is required for all bidders on all City of Austin Contracts to be awarded with values equal to or in excess of \$25,000.00 and all non-procurement transactions.

The CONTRACTOR hereby certifies that its firm and its principals are not currently suspended or debarred from bidding on any Federal, State, or City of Austin Contracts.

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

STATEMENT OF BIDDER’S SAFETY EXPERIENCE

Section 00410

**BIDDER’S SAFETY EXPERIENCE
(To Be Submitted Post-Bid)**

Solicitation Number: _____ (to be filled in by Contractor)

NAME OF BIDDER: _____

Pursuant to Section 252.0435 of the Local Government Code, the OWNER will consider the safety records of bidders prior to awarding a City contract. Upon request, a bidder is required to provide information to demonstrate the safety and health performance of their company. The information obtained from a bidder or from other sources will be used to determine the bidder’s safety record will not be used to automatically exclude the bidder from consideration for this or any future procurement. The OWNER will consider the responses to this Section 00410 document separately when making a discretionary determination of whether to disqualify a bidder and may also consider the cumulative impact of the information generated by the bidder’s responses in making the determination. Bidders are responsible for reviewing the safety records of proposed subcontractors.

Upon notification from the OWNER, the three (3) apparent low bidders are required to provide the following information:

WORKERS’ COMPENSATION EXPERIENCE MODIFICATION RATE DATA			
Provide bidder’s Workers’ Compensation Experience Modification Rate (EMR) Data using the loss experience that occurred within the past five years. Attach bidder’s NCCI workers compensation experience rating sheets for the past five (5) years.		Policy Year	EMR
	Current EMR:		
	1 Year Ago:		
	2 Years Ago:		
	3 Years Ago:		
	4 Years Ago:		
Bidder’s initialing here certifies that bidder does not have an EMR: _____ <i>(Submit a copy of bidder’s Insurance Loss Run Reports for the last five years if bidder does not have an EMR.)</i>			
Bidder may include additional information explaining any circumstances that may have affected the company’s EMR rate. 			
Evaluation: Bidders are not required to have a specified EMR or any certain EMR average in order to be awarded the contract.			

REGULATORY NOTICE AND CITATION HISTORY DATA	
<p>Provide bidder's information regarding regulatory OSHA and/or Environmental Protection Agency Notices and Citations as follows:</p> <p>Describe federal or state OSHA citations issued to or received by the bidder, a joint venture in which the bidder was participating, or another party participating with bidder in a joint venture in the past seven years or any notices from any environmental protection agency, including any notices or citations from any state agency or local government responsible for enforcing environmental protection or other health and safety laws or regulations of any state of the United States, received within the past seven years. Also, list any criminal charges filed against the bidder, a joint venture in which the bidder was participating, or another party participating with bidder in a joint venture, or its employees, directors or officers in the last seven years related to workplace health and safety or environmental violations.</p> <p align="center">***ROCIP Projects only***</p> <p>Please list all incidents or inspections resulting in a finding of imminent danger or willful violations of OSHA and/or City of Austin ROCIP Project Safety Manual regulations within the last seven years.</p>	<p>Provide a description of each on the OSHA/EPA form on the following page to include:</p> <ul style="list-style-type: none"> • Date of Citation/Notices • Issuing agency • Standard cited • Level of violation (i.e. serious, willful) • Dates and brief description(s) of the event(s) • Brief description(s) of actions taken to correct the violation(s) • Current status (Open, Closed, Contested) • If Closed, date of Closure • If Open, estimated date of Closure
<p>Bidder may include additional information explaining any related circumstances.</p>	
<p>Evaluation: Information may be verified by referring to respective agency. More than two serious, more than one willful violation (investigation completed) within the past three years or an accumulation of serious or willful violations over the past seven years may deem the Bidder non-responsive.</p>	

OSHA and/or Environmental Protection Agency Notices Within Past Three Years						
Date of Citation or Notice	Issuing Agency	Violation Level (i.e. serious, willful)	Brief description of event	Brief description of actions taken to correct violation(s)	Current Status (Open, Closed, Contested)	Closed Date, or if Open, estimated Close Date

INJURY AND ILLNESS INCIDENCE RATE DATA	
Provide bidder's *Total Case Incidence Rate(s) (TCIR) for the 3 most recent calendar years. Attach bidder's OSHA 300 and 300A logs for the past 3 years.	TCIR Rates: Current Rate: _____ 1 Year Ago: _____ 2 Years Ago: _____
DAYS AWAY, RESTRICTED, AND TRANSFER RATE DATA	
Provide bidder's **Days Away, Restricted, and Transfer Rate(s) (DART) for the three most recent calendar years.	DART Rates: Current Rate: _____ 1 Year Ago: _____ 2 Years Ago: _____
Bidder may include additional information explaining any circumstances that may have affected the submitted rates and/or their associated three year trends.	
Evaluation: Rates will be compared to the most recently published Bureau of Labor Statistics (BLS) national average for the Standard Industrial Classification code (SIC) or North American Industrial Classification Systems (NAICS) code for the construction industry. For consideration of another code within the construction industry, the Bidder must provide the code and justification. Bidders with a 3-year TCIR or DART average that exceeds the 3-year TCIR or DART industry average may be deemed non-responsive.	

**TCIR – To calculate the calendar year TCIR, determine the total number of all recordable injuries and illnesses that occurred during the year in question, divide that total by the total number of hours worked by all employees during that year, and multiply the result by 200,000.*

*** DART – To calculate the calendar year DART, determine the total number of recordable injuries and illnesses resulting in days away from work, restricted work activity, and/or job transfer that occurred during the year in question, divide that total by the total number of hours worked by all employees during that year, and multiply the result by 200,000.*

ACKNOWLEDGEMENT

THE STATE OF TEXAS

COUNTY OF TRAVIS

I certify that my responses and the information I have provided are true and correct to the best of my personal knowledge and belief and I have made no willful misrepresentations in this, or withheld any relevant information in my statements. I am aware that any information given by me in response to this Section 00410 may be investigated and I hereby give my full permission for any such investigations, and I fully acknowledge that any misrepresentations or omissions in my responses and information may cause my bid to be rejected or cause any contract based on misrepresentations to be cancelled.

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

**NON-COLLUSION, NON-CONFLICT OF INTEREST
AND ANTI-LOBBYING**

State of Texas
County of Travis

The term “**Bidder**”, as used herein, includes the individual or business entity submitting the bid includes the directors, officers, partners, managers, members, principals, owners, agents, representatives, employees, other parties in interest of the Bidder, and anyone or any entity acting for or on behalf of the Bidder, including a subcontractor in connection with this bid.

The terms “**City**” and “**Owner**” are synonymous.

1. **Anti-Collusion Statement.** The Bidder has not and will not in any way directly or indirectly:
 - a. colluded, conspired, or agreed with any other person, firm, corporation, bidder or potential bidder to the amount of this bid or the terms or conditions of this bid.
 - b. paid or agreed to pay any other person, firm, corporation bidder or potential bidder any money or anything of value in return for assistance in procuring or attempting to procure a contract or in return for establishing the prices in the attached bid or the bid of any other bidder.
2. **Preparation of Invitation for Bid and Contract Documents.** The Bidder has not received any compensation or a promise of compensation for participating in the preparation or development of the underlying bid or contract documents., In addition, the Bidder has not otherwise participated in the preparation or development of the underlying bid or contract documents, except to the extent of any comments or questions and responses in the bidding process, which are available to all bidders, so as to have an unfair advantage over other bidders, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.
3. **Participation in Decision Making Process.** The Bidder has not participated in the evaluation of bids or proposals or other decision making process for this solicitation, and, if Bidder is awarded a contract hereunder, no individual, agent, representative, consultant or sub contractor or consultant associated with Bidder, who may have been involved in the evaluation or other decision making process for this solicitation, will have any direct or indirect financial interest in the Contract, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.
4. **Present Knowledge.** Bidder is not presently aware of any potential or actual conflicts of interest regarding this solicitation, which either enabled Bidder to obtain an advantage over other bidders or would prevent Bidder from advancing the best interests of OWNER during the performance pf the contract.
5. **City Code.** As provided in Sections 2-7-61 through 2-7-65 of the City Code, no individual with a substantial interest in Bidder is a City official or employee or is related to any City official or employee within the first or second degree of consanguinity or affinity.
6. **Chapter 176 Conflict of Interest Disclosure.** In accordance with Chapter 176 of the Texas Local Government Code, the Bidder:

Bidding Requirements, Contract Forms and Conditions of the Contract

- a. does not have an employment or other business relationship with any local government officer of OWNER or a family member of that officer that results in the officer of family member receiving taxable income;
- b. has not given a local government officer of OWNER one or more gifts, other than gifts of food lodging transportation or entertainment accepted as a guest, that have an aggregate value of more than \$100 in the twelve-month period preceding the date the officer becomes aware of the execution of the Contract or that OWNER is considering doing business with the Bidder; and
- c. does not have a family relationship with a local government officer of OWNER in the third degree of consanguinity or the second degree of affinity.

As required by Chapter 176, Bidder must file the Conflicts of Interest Questionnaire with Austin Financial Services, Central Procurement no later than the seventh business day after the commencement of contract discussions or negotiations with the City or the submission of a Bid, response to a request for proposals, or other writing related to a potential contract with OWNER. The questionnaire must be updated not later than the seventh day after the date of an event that would make a statement in the questionnaire inaccurate or incomplete. There are statutory penalties for failure to comply with Chapter 176.

7. **Anti-Lobbying Ordinance.** On June 14, 2018, the Austin City Council adopted Ordinance No. 20180614-056 replacing Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly had communication restricted in the ordinance section 2-7-104 during the No- Lobbying Period as defined in the Ordinance. The text of the City Ordinance is included in Section 00100 of this solicitation and is also posted on the Internet at:
https://assets.austintexas.gov/purchase/downloads/New_ALO_Ordinance_No_20180614-056.pdf
8. Pursuant to Texas Government Code §2271.002, the City is prohibited from contracting with any “company” for goods or services unless the following verification is included in this Contract
 - a. For the purposes of this Section only, the terms “company” and “boycott Israel” have the meaning assigned by Texas Government Code §2271.001.
 - b. If the Bidder qualifies as a “company,” then Bidder verifies that it:
 - i. does not “boycott Israel”; and
 - ii. will not “boycott Israel” during the term of this Contract.
 - c. Bidder’s obligations under this Section, if any exist, will automatically cease or be reduced to the extent that the requirements of Texas Government Code Chapter 2271 are subsequently repealed, reduced, or declared unenforceable or invalid in whole or in part by any court or tribunal of competent jurisdiction or by the Texas Attorney General, without any further impact on the validity or continuity of this Contract.
9. Bidder certifies that it is aware of City Council Resolution No. 20191114-056, which prohibits the City from contracting with entities that engage in certain practices related to conversion therapy. By bidding and accepting this Contract, the Bidder agrees that: (1) its firm and its principals are not currently and will not during the term of the Contract engage in practicing LGBTQ+ conversion therapy; referring persons to a healthcare provider or other person or organization for LGBTQ+ conversion therapy; or contracting with another entity to conduct

LGBTQ+ conversion therapy; and that (2) if the City determines in its sole discretion that Bidder has during the term of this Contract engaged in any such practices, the City may terminate this Contract without penalty to the City.

10. Pursuant to Texas Government Code Chapter 2275, Bidder certifies that if it has or will have remote or direct access to communication infrastructure systems, cybersecurity systems, the electric grid, hazardous waste treatment systems, or water treatment facilities as a result of any City contract, that Bidder is not:
 - a. owned by or the majority of stock or other ownership interest of its firm is not held or controlled by:
 - i. individuals who are citizens of China, Iran, North Korea, Russia, or a Governor-designated country; or
 - ii. a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China Iran, North Korea, Russia, or a Governor-designated country; or
 - iii. headquartered in China, Iran, North Korea, Russia, or a Governor-designated country.
11. Pursuant to ERCOT Protocols Section 16.1.4(1)(b), we verify that if we provide Critical Electrical Grid Equipment (CEGE) or Critical Electric Grid Services (CEGS), any CEGE or CEGS we provide were not manufactured, produced, created, or otherwise provided by a Lone Star Infrastructure Protection Act (LSIPA) Designated Company.

Critical Electric Grid Equipment (CEGE). (1) Equipment accessible by means of routable connectivity that, as installed, can be used to gain remote access to or control of ERCOT System Infrastructure, the ERCOT Wide Area Network (WAN), or Market Information System (MIS), if such equipment, if destroyed, degraded, misused, or otherwise rendered unavailable would, within 15 minutes or less of its mis-operation, non-operation, or required operation, adversely impact the reliable operation of ERCOT System Infrastructure. Redundancy of affected facilities, systems, and equipment shall not be considered when determining adverse impact. (2) For Load Resources, this definition only applies to equipment used to send and receive ERCOT telemetry and ERCOT Dispatch Instructions. (3) For purposes of this definition, “reliable operation of ERCOT System Infrastructure” means operating elements of ERCOT System Infrastructure within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of ERCOT System Infrastructure will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.

Critical Electric Grid Services (CEGS). Services and software provided by a vendor for the operation, control, monitoring, maintenance, or use of Critical Electric Grid Equipment (CEGE), excluding access specifically allowed by the purchaser for product warranty or support purposes.

ERCOT System Infrastructure. The Transmission Facilities, distribution facilities, Resources, Settlement Only Generators (SOGs), and Emergency Response Service (ERS) Resources that comprise the ERCOT System and the physical and virtual cyber assets used to control the ERCOT System.

Lone Star Infrastructure Protection Act (LSIPA) Designated Company. An Entity (including an LSIPA Affiliate) that meets any of the company ownership or headquarters criteria listed in Texas Business and Commerce Code, Section 117.002(a)(2)(A)-(b)(2)(B) or Texas Government Code Section 2275.0102(a)(2)(A)-(b)(2)(B).

Lone Star Infrastructure Protection Act (LSIPA) Designated Country. China, Iran, North Korea, Russia, or a country designated by the Governor as a threat to critical infrastructure

Bidding Requirements, Contract Forms and Conditions of the Contract

pursuant to Texas Business and Commerce Code, Section 117.003 or Texas Government Code, Section 2275.0103.

Lone Star Infrastructure Protection Act (LSIPA) Affiliate. An Entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with the LSIPA Designated Company. For purposes of this definition, “controls,” “controlled by,” or “under common control with” shall mean (1) the ownership of 20 percent or more of the outstanding securities of an Entity or (2) the power of an Entity, directly or indirectly, through one or more intermediaries, to direct the management and/or policies and procedures of another Entity. Ownership by an Entity of equity securities (whether publicly traded or not) of another Entity shall not result in control for purposes of this definition if the holder owns (in its name or via intermediaries) 20 percent or more of the outstanding securities of the Entity, and: (a) the securities are held as a passive investment; (b) the holder does not have representation on the Entity’s board of directors (or equivalent governing body) or vice versa; and (c) the holder does not in fact exercise influence over day-to-day management decisions.

12. Pursuant to Texas Government Code Chapter 2274, Bidder certifies that, if it has 10 or more full-time employees, Bidder: (1) it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and (2) will not discriminate during the term of the resulting contract against a firearm entity or firearm trade association.
13. Pursuant to Texas Government Code Chapter 2276, Bidder certifies that, if Bidder has 10 or more full-time employees, Bidder: (1) does not boycott energy companies; and (2) will not boycott energy companies during the term of the contract.

END

STATE OF TEXAS
COUNTY OF TRAVIS

THIS AGREEMENT is made and entered into by and between the City of Austin, Texas, a municipal corporation, organized and existing under laws of State of Texas, acting through its City Manager or other duly authorized designee, hereinafter referred to as the "OWNER," and _____, of the City of _____, County of _____, and State of _____, hereinafter referred to as the "CONTRACTOR."

In consideration of the promises, performances, payments and agreements set forth herein CONTRACTOR hereby agrees to commence and complete the following Project:

_____ and all Work in accordance with the Project Manual, Drawings and Addenda, which are incorporated herein by reference and made a part hereof and which have been prepared by _____ and approved by OWNER, and OWNER agrees to pay the CONTRACTOR the total amount of:

\$	
----	--

(Figures)

(Words)

The CONTRACTOR hereby agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to <substantially> <finally> complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within _____ (____) <Working> <Calendar> Days. <If a Substantial Completion date has been specified, the CONTRACTOR further agrees to reach Final Completion within <_____> (<____>) <Working> <Calendar> Days after Substantial Completion as required by the Project Manual, Drawings and Addenda for the work.> Waiver of any breach of this Contract shall not constitute waiver of any subsequent breach.

In consideration of the award and execution of this Contract, and in consideration of the waiver of its right to attorney's fees by the OWNER, the CONTRACTOR knowingly and intentionally waives its right to attorney's fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to this Contract.

OWNER agrees to pay CONTRACTOR from available funds for performance of the Contract in accordance with the Bid and the provisions of the Contract Documents, subject to additions and deductions, as provided therein.

The OWNER's payment obligations are payable only and solely from funds available for the purposes of this Agreement.

Although drafted by OWNER, this Agreement, in event of any disputes over its meaning or application, shall be interpreted fairly and reasonably, and neither more strongly for nor against either party.

This Agreement is executed to be effective upon the date of the last party to sign.

The undersigned, by their signature, represents that they are authorized to bind the Contractor to fully comply with the Contract. The Contractor, by signing below, acknowledge that they have read the entire contract and agree to be bound by the terms contained herein.

OWNER

By: _____
(Signature)

Date

Title of Signatory

§ **CONTRACTOR**

§ **By:** _____
(Signature)

§ _____
Date

§ _____
Printed Name of Signatory

§ _____
Title of Signatory, Authorized Rep

§ ATTEST (as applicable)

§ _____
§ ***Corporate Secretary of Corporate Bidder or Corporate General Partner**

END

PERFORMANCE BOND
Section 00610

STATE OF TEXAS
COUNTY OF _____

Bond No. _____
C.I.P. ID No. _____

Project Name _____

Know All Men By These Presents: That _____ of the City of _____,
County of _____, and State of _____, as Principal, and
_____, a solvent company authorized under laws of the State of Texas
to act as surety on bonds for principals, are held and firmly bound unto _____
(OWNER), in the penal sum of _____ U.S. Dollars (\$ _____ U.S.) for payment
whereof, well and truly to be made, said Principal and Surety bind themselves and their
heirs, administrators, executors, successors and assigns, jointly and severally, by these
presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written
contract with OWNER, dated the _____ day of _____, _____, which Agreement 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 said Principal shall faithfully
perform said Agreement and shall in all respects duly and faithfully observe and perform all
and singular covenants, conditions and agreements in and by said contract agreed and
covenanted by Principal to be observed and performed, and according to true intent and
meaning of said Agreement hereto annexed, then this obligation shall be void; otherwise to
remain in full force and effect. If OWNER notifies Principal and Surety the OWNER is
considering declaring Principal in default, Surety agrees to meet with OWNER and Principal
no later than fifteen days after receipt of such notice to discuss methods of performing the
Work of the Contract.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253,
Texas Government Code as amended and all liabilities on this bond shall be determined in
accordance with provisions of said Article to same extent as if it were copied at length
herein.

Surety, for value received, stipulates and agrees that no change in Contract Time or
Contract Amount shall in anywise affect its obligation on this bond, and it does hereby waive
notice of any such change in Contract Time or Contract Amount.

In witness whereof, said Principal and Surety have signed and sealed this instrument this
_____ day of _____, _____.

Principal

Surety

By _____
(Signature)

By _____
(Signature)

Title _____

Title _____

Address _____

Address _____

Telephone _____ Fax _____
E-Mail Address _____

Name and address of Resident Agent of Surety:

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

END

SAMPLE

Bidding Requirements, Contract Forms and Conditions of the Contract

PAYMENT BOND

Section 00620

STATE OF TEXAS
COUNTY OF _____

Bond No. _____
C.I.P. ID No. _____

Project Name: _____

Know All Men By These Presents: That _____ of the City of _____, County of _____, and State of _____ as Principal, and _____, a solvent company authorized under laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto _____ (OWNER), and all Subcontractors, workers, laborers, mechanics and suppliers as their interests may appear, all of whom shall have right to sue upon this bond in the penal sum of _____ U.S. Dollars (\$_____ U.S.) for payment whereof, well and truly to be made, said Principal and Surety bind themselves and their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

Conditions of this Bond are such that, whereas, Principal has entered into a certain written contract with OWNER, dated the _____ day of _____, _____, which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

Now, therefore, condition of this obligation is such, that if the said Principal shall well and truly pay all Subcontractors, workers, laborers, mechanics, and suppliers, all monies to them owing by said Principals for subcontracts, work, labor, equipment, supplies and materials done and furnished for the construction of improvement of said Agreement, then this obligation shall be and become null and void; otherwise to remain in full force and effect.

Provided, however, that this bond is executed pursuant to provisions of Chapter 2253, Texas Government Code as amended and all liabilities on this bond shall be determined in accordance with provisions of said Article to same extent as if it were copied at length herein.

Surety, for value received, stipulates and agrees that no change in Contract Time or Contract Amount shall in anywise affect its obligation on this bond, and it does hereby waive notice of any such change in Contract Time or Contract Amount.

In witness whereof, said Principal and Surety have signed and sealed this instrument this _____ day of _____, _____.

Principal

Surety

By _____
(Signature)

By _____
(Signature)

Title _____

Title _____

Bidding Requirements, Contract Forms and Conditions of the Contract

Address _____

Address _____

Telephone _____ Fax _____

E-Mail Address _____

Name and address of Resident Agent of Surety:

Note: Bond shall be issued by a solvent Surety company authorized to do business in Texas and shall meet any other requirements established by law or by OWNER pursuant to applicable law. A copy of surety agent's "Power of Attorney" must be attached hereto.

END

NON-DISCRIMINATION AND NON-RETALIATION CERTIFICATE

Section 00630

**City of Austin, Texas
Equal Employment/Fair Housing Office**

To: City of Austin, Texas, ("OWNER")

Our firm conforms to the Code of the City of Austin Section 5-4-2 as reiterated below:

Chapter 5-4. Discrimination in Employment by City Contractors.

Sec. 4-2 Discriminatory Employment Practices Prohibited. (B) As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations and agrees:

- (1) Not to engage in any discriminatory employment practice defined in this chapter.
- (2) To take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without discrimination being practiced against them as defined in this chapter. Such affirmative action shall include, but not be limited to: all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising; selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.
- (3) To post in conspicuous places, available to employees and applicants for employment, notices to be provided by OWNER setting forth the provisions of this chapter.
- (4) To state in all solicitations or advertisements for employees placed by or on behalf of Contractor, that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sexual orientation, gender identity, disability, veteran status, sex or age.
- (5) To obtain a written statement from any labor union or labor organization furnishing labor or service to Contractors in which said union or organization has agreed not to engage in any discriminatory employment practices as defined in this chapter and to take affirmative action to implement policies and provisions of this chapter.
- (6) To cooperate fully with OWNER's Equal Employment/Fair Housing Office in connection with any investigation or conciliation effort of said Equal Employment/Fair Housing Office to ensure that the purpose of the provisions against discriminatory employment practices are being carried out.
- (7) To require compliance with provisions of this chapter by all subcontractors having fifteen or more employees who hold any subcontract providing for expenditure of \$2,000.00 or more in connection with any contract with OWNER subject to the terms of this chapter.

Bidding Requirements, Contract Forms and Conditions of the Contract

For the purposes of this Bid and any resulting Contract, Contractor adopts the provisions of the City's Minimum Standard Nondiscrimination and Non-Retaliation Policy as set forth below.

City of Austin

Minimum Standard Non-Discrimination and Non-Retaliation in Employment Policy

As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations.

The Contractor will not discriminate against any applicant or employee based on race, creed, color, national origin, sex, age, religion, veteran status, gender identity, disability, or sexual orientation. This policy covers all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising, selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.

The Contractor agrees to prohibit retaliation, discharge or otherwise discrimination against any employee or applicant for employment who has inquired about, discussed or disclosed their compensation.

Further, employees who experience discrimination, sexual harassment, or another form of harassment should immediately report it to their supervisor. If this is not a suitable avenue for addressing their complaint, employees are advised to contact another member of management or their human resources representative. No employee shall be discriminated against, harassed, intimidated, nor suffer any reprisal as a result of reporting a violation of this policy. Furthermore, any employee, supervisor, or manager who becomes aware of any such discrimination or harassment should immediately report it to executive management or the human resources office to ensure that such conduct does not continue.

Contractor agrees that to the extent of any inconsistency, omission, or conflict with its current non-discrimination and non-retaliation employment policy, the Contractor has expressly adopted the provisions of the City's Minimum Non-Discrimination Policy contained in Section 5-4-2 of the City Code as set forth above and the City's Non-Retaliation Policy, as the Contractor's Non-Discrimination and Non-Retaliation Policy or as an amendment to such Policy and such provisions are intended to not only supplement the Contractor's policy, but will also supersede the Contractor's policy to the extent of any conflict.

*UPON CONTRACT AWARD, THE CONTRACTOR SHALL PROVIDE A COPY TO THE CITY OF THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY ON COMPANY LETTERHEAD, WHICH CONFORMS IN FORM, SCOPE, AND CONTENT TO THE CITY'S MINIMUM NON-DISCRIMINATION AND NON-RETALIATION POLICY, AS SET FORTH HEREIN, **OR** THIS NON-DISCRIMINATION AND NON-RETALIATION POLICY, WHICH HAS BEEN ADOPTED BY THE CONTRACTOR FOR ALL PURPOSES (THE FORM OF WHICH HAS BEEN APPROVED BY THE CITY'S EQUAL EMPLOYMENT/FAIR HOUSING OFFICE), WILL BE CONSIDERED THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY WITHOUT THE REQUIREMENT OF A SEPARATE SUBMITTAL.*

(<http://austintexas.gov/page/bid-docs>).

Sanctions:

Our firm understands that non-compliance with Chapter 5-4 may result in sanctions, including termination of the contract and suspension or debarment from participation in future City contracts until deemed compliant with the requirements of Chapter 5-4.

Bidding Requirements, Contract Forms and Conditions of the Contract

Term:

The Contractor agrees that this Section 00630 Non-Discrimination and Non-Retaliation Certificate or the Contractor's separate conforming policy, which the Contractor has executed and filed with the Owner, will remain in force and effect for one year from the date of filing. The Contractor further agrees that, in consideration of the receipt of continued Contract payments, the Contractor's Non-Discrimination Policy will automatically renew from year-to-year for the term of the underlying Contract.

END

Solicitation Number: _____ (to be filled in by Contractor)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, the Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate either directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 C.F.R. part 21.
3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation made by the contract for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.
4. Information and Reports: The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its book, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor will so certify to the Recipient, or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the Nondiscrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the contractor under the contract until the contractor complies, and or
 - (b) cancelling, terminating or suspending a contract, in whole or in part.
6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, that if a

Bidding Requirements, Contract Forms and Conditions of the Contract

contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(Source: DOT 1050.2A, Updated DOT Standard Title VI Assurances and Non-Discrimination Provisions 10/22/2013. Must be inserted into every contract/agreement regardless of funding sources.)

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

TITLE VI ASSURANCES APPENDIX E

Section 00632

Solicitation Number: _____ (to be filled in by Contractor)

During the performance of this contract, the contractor (hereinafter includes consultants), for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities:

1. Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 C.F.R. Part 21.
2. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
3. Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
4. Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 C.F.R. Part 27;
5. The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
6. Airport and Airway Improvement Act of 1982, (49 U.S.C. § 4 71, Section 4 7123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
7. The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, subrecipients and contractors, whether such programs or activities are Federally funded or not);
8. Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
9. The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
10. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

Bidding Requirements, Contract Forms and Conditions of the Contract

11. Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP).
12. To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
13. Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

(Source: DOT 1050.2A, Updated DOT Standard Title VI Assurances and Non-Discrimination Provisions 10/22/2013. Must be inserted into every contract/agreement regardless of funding sources.)

Contractor's full name and entity status:

(Name/Signature of Authorized Official)

Title

Date

END

Bidding Requirements, Contract Forms and Conditions of the Contract
CERTIFICATE OF INSURANCE
 Section 00650

This Certificate shall be completed by a licensed insurance agent:

Name and Address of Agency:

 Phone: _____ / _____

City of Austin Reference:
 Project Name:
 C.I.P. No.:
 Project Location:

Name and Address of Insured:

 Phone: _____ / _____

Managing Dept.:
 Contract No.:
 Project Mgr.:

Insurers Affording Coverages:

Insurer A: _____
 Insurer B: _____
 Insurer C: _____
 Insurer D: _____

Prime or Sub-Contractor?: _____

Name of Prime Contractor, if different from Insured: _____

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFTE- CTIVE DATE (MM/DD/YYYY)	POLICY EXPIR- ATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	Commercial General Liability Policy As defined in the Policy, does the Policy provide:				Each Occurrence	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Completed Operations/Products				General Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Contractual Liability				Completed Operations /Products Aggregate	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Explosion				Personal & Advertising Injury	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Collapse				Deductible or Self Insured Retention	\$
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Underground					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Contractors/ Subcontractors Work					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Aggregate Limits per Project Form CG 2503					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured Form – CG 2010 and CG2037					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation Form – CG 0205					
	<input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation Form – CG 2404					
	Pollution/ Environmental Impairment Policy				Occurrence	\$
					Aggregate	\$

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS OF LIABILITY	
	Auto Liability Policy As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- Any Auto <input type="checkbox"/> Yes <input type="checkbox"/> No -- All Owned Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Non-Owned Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Hired Autos <input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation – CA0444 <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation – CA0244 <input type="checkbox"/> Yes <input type="checkbox"/> No -- Additional Insured – CA2048 <input type="checkbox"/> Yes <input type="checkbox"/> No -- MCS 90				CSL	\$
					Bodily Injury (Per Accident)	\$
					Bodily Injury (Per Person)	\$
					Property Damage (Per Accident)	\$
	Excess Liability <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Excess Liability Follow Form				Occurrence	\$
					Aggregate	\$
	Workers Compensation and Employers Liability As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- Waiver of Subrogation – WC420304 <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation – WC420601				<input type="checkbox"/> Statutory	
					Each Accident	\$
					Disease – Policy Limit	\$
					Disease – Each Employee	\$
	Is a Builders Risk or Installation Insurance Policy provided? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No -- Is the City shown as loss payee/mortgagee?					\$
	Professional Liability As defined in the Policy, does the Policy provide: <input type="checkbox"/> Yes <input type="checkbox"/> No -- 30 Day Notice of Cancellation Retroactive Date: _____				Each Claim	\$
					Deductible or Self Insured Retention	\$

This form is for informational purposes only and certifies that policies of insurance listed above have been issued to insured named above and are in force at this time. Notwithstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, insurance afforded by policies described herein is subject to all terms, exclusions and conditions of such policies.

CERTIFICATE HOLDER: _____ **DATE ISSUED:** _____

City of Austin
 Capital Contracting Office
 P.O. Box 1088
 Austin, Texas 78767

 AUTHORIZED REPRESENTATIVE SIGNATURE
 Licensed Insurance Agent

END

Bidding Requirements, Contract Forms and Conditions of the Contract
TEXAS SALES AND USE TAX EXEMPTION CERTIFICATE
Section 00670

City of Austin, Texas
P.O. Box 1088
Austin, Texas 78767

CONTRACTOR/PURCHASER:

Street Address:

City, State, ZIP Code:

Project:

Project Manager:

FDU No.:

CIP ID No.:

Description of items to be purchased or as described on the attached order or invoice:

The Contractor may purchase all labor, materials, supplies, and equipment to be incorporated in the City of Austin realty, including easements, or completely consumed at the Project jobsite and services required by or integral to the performance of the contract for the Project without paying sales or use tax in accordance with State Comptroller Rule 3.291.

Contractor/Purchaser claims this exemption for the following reason: This contract is to be performed for the City of Austin, a tax exempt entity under the Texas Tax Code.

I understand that I will be liable for payment of sales and use taxes which may become due for failure to comply with the provisions of the Tax Code. I also understand that it is a criminal offense to give an exemption certificate to the contractor for taxable items that I know, at the time of purchase, will be used in a manner other than that expressed in this certificate and depending on the amount of tax evaded, the offense may range from a Class B misdemeanor to a felony of the second degree.

City of Austin, Texas

Title



Ed Van Eenoo

Chief Financial Officer

CONTRACTOR/PURCHASER: _____

By: _____

Title: _____

Date: _____

NOTE: This certificate cannot be issued for the purchase, lease, or rental of a motor vehicle.

THIS CERTIFICATE DOES NOT REQUIRE A NUMBER TO BE VALID. Sales and Use Tax "Exemption Numbers" or "Tax Exempt" Numbers do not exist. This certificate should be furnished to the supplier. Do not send the completed certificate to the Comptroller of Public Accounts.

End

NON-USE OF ASBESTOS AFFIDAVIT (CONTRACTOR PRIOR TO CONSTRUCTION)

Section 00680

**STATE OF TEXAS
COUNTY OF TRAVIS**

BEFORE ME, the undersigned authority, personally appeared the Affiant who, being by me first duly sworn, upon oath deposed and stated:

"My name is _____, hereinafter known as Affiant. "I am over the age of 18 years and I have never been convicted of a crime. I am the _____ of _____ hereinafter known as CONTRACTOR.

"I am fully competent to make this affidavit. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS CONTRACTOR has submitted a bid to the City of Austin as the Prime CONTRACTOR and anticipates being awarded a contract for the construction of _____ located at _____, Austin, Texas, hereinafter known as Project, for the City of Austin, Texas, hereinafter known as OWNER, and "WHEREAS asbestos in a dust form is a recognized health hazard, and "WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project; "THEREFORE the CONTRACTOR affirms and understands the following:

1. The CONTRACTOR, any person, firm or organization representing or represented by the CONTRACTOR, or employed by the CONTRACTOR shall not cause or allow any material to be incorporated into the construction of the project, or allow any building material on the project site that is an asbestos containing material or any other material defined as containing asbestos by any laws, rules or regulations promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.
2. Realizing that there might be some materials in which a satisfactory non-asbestos containing material could not be obtained, the Consultant has received prior approval from the OWNER before specifying any such asbestos containing material. Those approved materials are the only asbestos containing materials that are exempt from the above prohibition.
3. The CONTRACTOR certifies and affirms their understanding that if any asbestos containing materials not approved by the City of Austin for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been incorporated into the construction of the Project, or brought onto the site of the Project, the OWNER shall look to the CONTRACTOR for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.
4. CONTRACTOR further understands that OWNER shall also look to the CONTRACTOR for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have not been approved by OWNER.

Bidding Requirements, Contract Forms and Conditions of the Contract

5. CONTRACTOR further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the CONTRACTOR by any and every means within OWNER's right and power.

Signature of Affiant: _____

**STATE OF TEXAS
COUNTY OF TRAVIS**

ON _____, 20____, personally appeared _____ and been duly sworn by me, subscribed to the foregoing affidavit and has stated that the facts stated therein are true and correct.

Notary Public, State of Texas

Printed Name of Notary

My Commission Expires: _____

END

NON-USE OF ASBESTOS AFFIDAVIT (CONTRACTOR AFTER CONSTRUCTION)

Section 00681

**STATE OF TEXAS
COUNTY OF TRAVIS**

BEFORE ME, the undersigned authority, personally appeared the Affiant who, being by me first duly sworn, upon oath deposed and stated:

"My name is _____, hereinafter known as Affiant. "I am over the age of 18 years and I have never been convicted of a crime. I am the _____ of _____ hereinafter known as CONTRACTOR.

"I am fully competent to make this affidavit. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS CONTRACTOR was awarded a Contract for, and was the Prime CONTRACTOR for the construction of _____ located at _____, Austin, Texas, hereinafter known as Project, for the City of Austin, Texas, hereinafter known as OWNER, and "WHEREAS asbestos in a dust form is a recognized health hazard, and "WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project; "THEREFORE the CONTRACTOR affirms and understands the following:

1. The CONTRACTOR, any person, firm or organization representing or represented by the CONTRACTOR, or employed by the CONTRACTOR has not caused or allowed any material to be incorporated into the construction of the project, or allowed any building material on the project site that is an asbestos containing material or any other material defined as containing asbestos by any laws, rules or regulation promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.

2. Realizing that there were some materials in which a satisfactory non-asbestos containing material could not be obtained, the Consultant received prior approval from the OWNER before specifying any such asbestos containing material. Those approved materials were the only asbestos containing materials incorporated into the construction of the Project and are listed below, with their locations:

3. The CONTRACTOR certifies and affirms their understanding that if any asbestos containing materials not approved by the City of Austin for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been incorporated into the construction of the Project, or brought onto the site of the Project, the OWNER shall look to the CONTRACTOR for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.

Bidding Requirements, Contract Forms and Conditions of the Contract

4. CONTRACTOR further understands that OWNER shall also look to the CONTRACTOR for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have not been approved by OWNER.

5. CONTRACTOR further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the CONTRACTOR by any and every means within OWNER's right and power.

Signature of Affiant: _____

**STATE OF TEXAS
COUNTY OF TRAVIS**

On _____, 20____, personally appeared _____ and been duly sworn by me, subscribed to the foregoing affidavit and has stated that the facts stated therein are true and correct.

Notary Public, State of Texas

Printed Name of Notary

My Commission Expires: _____

END

Bidding Requirements, Contract Forms and Conditions of the Contract
GENERAL CONDITIONS OF THE CONTRACT
Section 00700

General Conditions Table of Contents

ARTICLE 1 – DEFINITIONS.....2
ARTICLE 2 - PRELIMINARY MATTERS5
ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE.....8
ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS 9
ARTICLE 5 - BONDS AND INSURANCE.....12
ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES15
ARTICLE 7 - OTHER WORK.....28
ARTICLE 8 - OWNER'S RESPONSIBILITIES29
ARTICLE 9 - ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION.....30
ARTICLE 10 - CHANGES IN THE WORK.....31
ARTICLE 11 - CHANGE OF CONTRACT AMOUNT33
ARTICLE 12 – CHANGE OF CONTRACT TIMES36
ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK.....38
ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION41
ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION.....47
ARTICLE 16 - DISPUTE RESOLUTION.....50
ARTICLE 17 – MISCELLANEOUS52

ARTICLE 1 – DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

- 1.1. **Addendum** - Written instruments issued by the Contract Awarding Authority which clarify, correct or change the bidding requirements or the Contract Documents prior to the Due Date. “Addenda” is the plural form of Addendum.
- 1.2. **Agreement** - Prescribed form, Section 00500.
- 1.3. **Alternative Dispute Resolution** - The process by which a disputed Claim may be settled if the OWNER and the CONTRACTOR cannot reach an agreement between themselves, as an alternative to litigation.
- 1.4. **Bid** - A complete, properly signed response to an Invitation for Bid that, if accepted, would bind the Bidder to perform the resultant Contract.
- 1.5. **Bidder** - A person, firm, or entity that submits a Bid in response to a Solicitation. Any Bidder may be represented by an agent after submitting evidence demonstrating the agent’s authority. The agent cannot certify as to his own agency status.
- 1.6. **Bid Documents** - The advertisement or Invitation for Bids, instructions to Bidders, the Bid form, the Contract Documents and Addenda.
- 1.7. **Calendar Day** - Any day of the week; no days being excepted. Work on Saturdays, Sundays, and/or Legal Holidays shall be coordinated with OWNER.
- 1.8. **Change Directive** - A written directive to CONTRACTOR, signed by OWNER, ordering a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Amount or Contract Time, or both. A Change Directive may be used in the absence of total agreement on the terms of a Change Order. A Change Directive does not change the Contract Amount or Contract Time, but is evidence that the parties expect that the change directed or documented by a Change Directive will be incorporated in a subsequently issued Change Order.
- 1.9. **Change Orders** - Written agreements entered into between CONTRACTOR and OWNER authorizing an addition, deletion, or revision to the Contract, issued on or after the Execution Date of the Agreement.
- 1.10. **Claim** - A written demand seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract.
- 1.11. **Contract** - The binding legal agreement between the OWNER and the CONTRACTOR. The Contract represents the entire and integrated agreement between OWNER and CONTRACTOR for performance of the Work, as evidenced by the Contract Documents.
- 1.12. **Contract Amount** - The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents.
- 1.13. **Contract Awarding Authority** - A City department authorized to enter into Contracts on behalf of the City.
- 1.14. **Contract Documents** - Project Manual, Drawings, Addenda and Change Orders.
- 1.15. **Contract Time** - The number of days allowed for completion of the Work as defined by the Contract. When any period is referred to in days, it will be computed to exclude the first and include the last day of such period. A day of twenty-four hours measured from midnight to the next midnight will constitute a day.
- 1.16. **CONTRACTOR** - The individual, firm, corporation, or other business entity with whom

OWNER has entered into the Contract for performance of the Work.

- 1.17. Critical Path** - The longest series of tasks that runs consecutively from the beginning to the end of the project, as determined by duration and workflow sequence. This longest path sets the managerial standard for how quickly a project can be completed, given appropriate resources.
- 1.18. Drawings** - Those portions of the Contract Documents which are graphic representations of the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been approved by OWNER. Drawings may include plans, elevations, sections, details, schedules and diagrams. Shop Drawings are not Drawings as so defined.
- 1.19. Due Date** - The date and time specified for receipt of Bids.
- 1.20. Engineer/Architect (E/A)** - The OWNER's design professional identified as such in the Contract. The titles of "Architect/Engineer," "Architect" and "Engineer" used in the Contract Documents shall read the same as Engineer/Architect (E/A). Nothing contained in the Contract Documents shall create any contractual or agency relationship between E/A and CONTRACTOR.
- 1.21. Equal** - The terms "equal" or "approved equal" shall have the same meaning.
- 1.22. Execution Date** - Date of last signature of the parties to the Agreement.
- 1.23. Field Order** - A written order issued by Owner's Representative which orders minor changes in the Work and which does not involve a change in the Contract Amount or the Contract Time.
- 1.24. Final Completion** - The point in time when OWNER determines that all Work has been completed and final payment to CONTRACTOR will be made in accordance with the Contract Documents.
- 1.25. Force Account** - a basis of payment for the direct performance of Work with payment based on the actual cost of the labor, equipment and materials furnished and consideration for overhead and profit as set forth in Section 11.5.
- 1.26. Inspector** - The authorized representative of any regulatory agency that has jurisdiction over any portion of the Work.
- 1.27. Invitation for Bid (IFB)** - a Solicitation requesting pricing for a specified Good or Service which has been advertised for Bid in a newspaper and/or the Internet.
- 1.28. Legal Holidays**
- 1.28.1.** The following are recognized by the OWNER:
- | <u>Holiday</u> | <u>Date Observed</u> |
|------------------------------------|-----------------------------|
| New Year's Day | January 1 |
| Martin Luther King, Jr.'s Birthday | Third Monday in January |
| President's Day | Third Monday in February |
| Memorial Day | Last Monday in May |
| Juneteenth | June 19 |
| Independence Day | July 4 |
| Labor Day | First Monday in September |
| Veteran's Day | November 11 |
| Thanksgiving Day | Fourth Thursday in November |
| Friday after Thanksgiving | Friday after Thanksgiving |
| Christmas Eve | December 24 |
| Christmas Eve | December 25 |

- 1.28.2.** If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday.
- 1.28.3.** Christmas Eve is observed only if it falls on a Monday through Thursday. If Christmas Eve falls on a Friday, that day is observed as the Christmas Day holiday.
- 1.29. Milestones** - A significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
- 1.30. Notice to Proceed** - A Written Notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.
- 1.31. OWNER** - City of Austin, Texas, a municipal corporation, home rule city and political subdivision organized and existing under the laws of the State of Texas, acting through the City Manager or his/her designee, officers, agents or employees to administer design and construction of the Project.
- 1.32. Owner's Representative** - The designated representative of the OWNER. The Owner's Representative will be identified at the pre-construction conference.
- 1.33. Partial Occupancy or Use** - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work, provided OWNER and CONTRACTOR have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, utilities, corrective work, insurance and warranties.
- 1.34. Project** - The subject of the Work and its intended result.
- 1.35. Project Manual** - That portion of the Contract Documents which may include the following: introductory information; bidding requirements, Contract forms and General and Supplemental General Conditions; General Requirements; Specifications; Drawings; MBE/WBE or DBE Procurement Program Package; Project Safety Manual; and Addenda.
- 1.36. Resident Project Representative** - The authorized representative of E/A who may be assigned to the site or any part thereof.
- 1.37. Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR as required by the Contract Documents.
- 1.38. Specifications** - Those portions of the Contract Documents consisting of written technical descriptions as applied to the Work, which set forth to CONTRACTOR, in detail, the requirements which must be met by all materials, equipment, construction systems, standards, workmanship, equipment and services in order to render a completed and useful project.
- 1.39. Solicitation** - Solicitation means, as applicable, an Invitation for Bid or a Request for Proposal.
- 1.40. Substantial Completion** - The stage in the progress of the Work when the Work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents so OWNER can occupy or utilize the Work for its intended use, as evidenced by a Certificate of Substantial Completion approved by OWNER.
- 1.41. Subcontractor** - An individual, firm, corporation, or other business entity having a direct contract with CONTRACTOR for the performance of a portion of the Work under the Contract.

- 1.42. Sub-Subcontractor** - A person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the work.
- 1.43. Superintendent** - The representative of CONTRACTOR authorized in writing to receive and fulfill instructions from the Owner's Representative, and who shall supervise and direct construction of the Work.
- 1.44. Supplemental General Conditions** - The part of the Contract Documents which amends or supplements the General Conditions. All General Conditions which are not so amended or supplemented remain in full force and effect.
- 1.45. Supplier** - An individual or entity having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.
- 1.46. Time Extension Request** - An approved request for time extension on a form acceptable to OWNER.
- 1.47. Work** - The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents.
- 1.48. Working Day** - Any day of the week, not including Saturdays, Sundays, or Legal Holidays in which conditions under the CONTRACTOR's control will permit work for a continuous period of not less than seven (7) hours between 7:00 a.m. and 6:00 p.m. If other contract documents reduce the continuous period available for work to less than seven (7) hours, those reduced hours shall be considered a Working Day. Upon agreement with Owner's Representative, work on Saturdays, Sundays, and/or Legal Holidays may be allowed and will be considered a Working Day.
- 1.49. Working Hours**
- 1.49.1. Working Day Contract:** All Work shall be done between 7:00 a.m. and 6:00 p.m. unless otherwise authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. If night Work is authorized and conditions under CONTRACTOR's control will permit Work for a continuous period of not less than seven (7) hours between 12:00 a.m. and 11:59 p.m. it will be considered a Working Day. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.
- 1.49.2. Calendar Day Contract:** All Work shall be done between 7:00 a.m. and 6:00 p.m. unless authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.
- 1.50. Written Notice** - Written communication between OWNER and CONTRACTOR. Written Notice shall be deemed to have been duly served if delivered in person to Owner's Representative or CONTRACTOR's duly authorized representative, or if delivered at or sent by registered or certified mail to the attention of Owner's Representative or CONTRACTOR's duly authorized representative at the last business address known to the party giving notice.

ARTICLE 2 - PRELIMINARY MATTERS

- 2.1. Delivery of Agreement, Bonds, Insurance, etc.:** Within five (5) Working Days after written notification of award of Contract, CONTRACTOR shall deliver to OWNER signed Agreement,

Bond(s), Insurance Certificate(s) and other documentation required for execution of Contract.

2.2. Copies of Documents: OWNER shall furnish to CONTRACTOR (1) copy of the executed Project Manual, one (1) set of Drawings and one (1) copy of the Contract Documents in .pdf format. Additional copies will be furnished, upon request, at the cost specified in the Supplemental General Conditions.”

2.3. Commencement of Contract Times; Notice to Proceed: The Contract Time(s) will begin to run on the day indicated in the Notice to Proceed. Notice to Proceed will be given at any time within sixty (60) calendar days after the Execution Date of the Agreement, unless extended by written agreement of the parties.

2.4. Before Starting Construction:

2.4.1. No Work shall be done at the site prior to the preconstruction conference without OWNER's approval. Before undertaking each part of the Work, CONTRACTOR shall carefully study the Contract Documents to check and verify pertinent figures shown thereon compare accurately to all applicable field measurements. CONTRACTOR shall promptly report in writing to Owner's Representative any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from Owner's Representative before proceeding with any Work affected thereby. CONTRACTOR shall be liable to OWNER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents of which CONTRACTOR knew or reasonably should have known.

2.4.2. It is mutually agreed between CONTRACTOR and OWNER that successful completion of the Work within the Contract completion date is of primary importance. Therefore, the CONTRACTOR hereby agrees to submit to the Owner's Representative for review and approval, or acceptance, as appropriate, all information requested within this section, including a Baseline Schedule, no later than five working days prior to the preconstruction conference. The Owner's Representative will schedule the preconstruction conference upon the timely submittal of the required documents, unless time is extended by written mutual agreement. CONTRACTOR will submit the following:

- .1** A proposed Baseline Schedule developed using Microsoft Project software, unless otherwise approved by Owner's Representative (“Baseline Schedule”) to confirm that all Work will be completed within the Contract time. The Baseline Schedule must (i) indicate the times (number of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents, (ii) identify the Critical Path for completing the Work, (iii) identify when all Subcontractors will be utilized, and (iv) take into consideration any limitations on Working Hours, including baseline Rain Days on Calendar Day Contracts, and (v) be prepared accordance with Section 01310, Schedules and Reports, if applicable; otherwise in accordance with Section 01300, Submittals. This Baseline Schedule, a copy of which shall be made available at the job site(s), must contain sufficient detail to indicate that the CONTRACTOR has properly identified required Work elements and tasks, has provided for a sufficient and proper workforce and integration of Subcontractors, has provided sufficient resources and has considered the proper sequencing of the Work required to result in a successful Project that can be completed within the Contract time;

- .2 An organizational chart showing the principals and management personnel who will be involved with the Work, including each one's responsibilities for the Work;
 - .3 To the extent not set forth in the Section 00400 Statement of Contractor's Experience, a complete listing of the CONTRACTOR's employees proposed for the Work. List each one by name and job title, and show length of employment with CONTRACTOR;
 - .4 To the extent not set forth in the Section 00410 Statement of Bidder's Safety Experience, a discussion and confirmation of the CONTRACTOR's commitment to safety by providing a copy of its employee's safety handbook and the safety records for the past three years of CONTRACTOR's proposed project manager and Superintendent;
 - .5 A preliminary schedule of Shop Drawing and sample submittals;
 - .6 A preliminary schedule of values for all of the Work, subdivided into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will be deemed to include an appropriate amount of overhead and profit applicable to each item of Work;
 - .7 To the extent not set forth in the Section 00400 Statement of Contractor's Experience, a letter designating CONTRACTOR's Superintendent and project manager, and a confirmation of past project experience for the CONTRACTOR's Superintendent and project manager specifically intended for the Work;
 - .8 A letter from CONTRACTOR and Subcontractor(s) listing salaried specialists. A salaried specialist is anyone except an hourly worker whose wage rate is governed by Section 00830 of this agreement;
 - .9 A letter designating the project's Safety Representative along with a copy of their Department of Labor-issued OSHA card proving completion of the OSHA 30-hour Construction Safety and Health training class in the OSHA Outreach Training Program;
 - .10 If applicable, an excavation safety system plan;
 - .11 If applicable, a plan illustrating proposed locations of temporary facilities;
 - .12 A completed Non-Use of Asbestos Affidavit (Prior to Construction);
 - .13 A letter designating the Texas Registered Professional Land Surveyor for layout of the Work, if the Work requires the services of a surveyor; and
 - .14 Copies of the Department of Labor-issued OSHA cards proving completion of the OSHA 10-hour Construction Safety and Health training class in the OSHA Outreach Training Program for each worker (defined as a person covered by a prevailing wage determination) that will initially be on site. Note that workers must possess other OSHA-required training as the work dictates in accordance with the OSHA Act; and specifically, the contractor must meet the required provisions in 509S Excavation Safety Systems required prior to commencing excavation;
 - .15 A certificate of worker's compensation insurance coverage for all persons providing services on the Project (refer to 5.2.1.3 in Section 00700 for definition of persons providing services on the Project);
 - .16 A Construction Equipment Emissions Reduction Plan.
- 2.4.3.** Neither the acceptance nor the approval of any of the submittals required in paragraph 2.4.2, above, will constitute the adoption, affirmation, or direction of

the CONTRACTOR'S means and methods.

- 2.5. Preconstruction Conference:** Prior to commencement of Work at the site, CONTRACTOR must attend a preconstruction conference with Owner's Representative and others, as set forth in Division 1. Additionally, prior to commencement of work, the CONTRACTOR shall host a preconstruction conference for the Subcontractors identified on the originally approved compliance plan, Owner's Representative and others, as set forth in Division 1. The CONTRACTOR shall notify all Subcontractors five (5) working days prior to the preconstruction conference. If the CONTRACTOR has included Subcontractors in the initial preconstruction conference, the additional Subcontractor preconstruction conference will not be required.
- 2.6. Initially Acceptable Schedules:** Unless otherwise provided in the Contract Documents, CONTRACTOR shall obtain approval of Owner's Representative on the Baseline Schedule submitted in accordance with paragraph 2.4.2.1 and Division 1 before the first progress payment will be made to CONTRACTOR. The Baseline Schedule must provide for an orderly progression of the designated portion of the Work to completion within any specified Milestones and Contract Times. Acceptance of the schedule by Owner's Representative will neither impose on Owner's Representative responsibility or liability for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility for such Work. CONTRACTOR's schedule of Shop Drawings and sample submissions must provide an acceptable basis for reviewing and processing the required submittals. CONTRACTOR's schedule of values must conform to the requirements set forth in Division 1.

ARTICLE 3- CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1. Intent:

- 3.1.1.** The intent of the Contract Documents is to include all information necessary for the proper execution and timely completion of the Work by CONTRACTOR. The CONTRACTOR will execute the Work described in and reasonably inferable from the Contract Documents as necessary to produce the results indicated by the Contract Documents. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. In cases of disagreement, the following order of precedence shall generally govern (top item receiving priority of interpretation):

- Signed Agreement
- Addendum to the Contract Documents, including approved changes
- Supplemental General Conditions
- General Conditions
- Other Bidding Requirements and Contract Forms
- Special Provisions to the Standard Technical Specifications
- Special Specifications
- Standard Technical Specifications
- Drawings (figured dimensions shall govern over scaled dimensions)
- Project Safety Manual (if applicable),

with the understanding that a common sense approach will be utilized as necessary so that the Contract Documents produce the intended response.

- 3.1.2.** Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.
- 3.2. Reporting and Resolving Discrepancies:** If, during the performance of the Work,

CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provisions of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual or code or instructions of any Supplier, CONTRACTOR shall report it to Owner's Representative in writing at once, and CONTRACTOR shall not proceed with the Work affected thereby until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.3.1 or 3.3.2. CONTRACTOR shall be liable to OWNER for failure to report any such conflict, error, ambiguity or discrepancy of which CONTRACTOR knew or reasonably should have known.

3.3. Modifying and Supplementing Contract Documents:

3.3.1. The Contract Documents may be modified to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions by change order or contract amendment.

3.3.2. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

- .1 Field Order.
- .2 Review of a Shop Drawing or sample.
- .3 Written interpretation or clarification.

3.4. Reuse of Documents Prohibited: CONTRACTOR and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of E/A or E/A's consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and E/A.

3.5. In the event of the breach by the OWNER or CONTRACTOR of any of its obligations under the Contract, so as to support a claim by the other party, the provisions of this Contract will be equitably construed to allow the resolution of such a claim and all of the other provisions of this Contract shall continue in full force and effect as to the rights, responsibilities, and remedies of the OWNER and CONTRACTOR.

ARTICLE 4-AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.1. Availability of Lands: The OWNER will provide access to all land and interests in land required for the Work and will notify CONTRACTOR of any restrictions in such access. CONTRACTOR may make a claim if OWNER fails to provide timely access to the Work.

CONTRACTOR must obtain any additional temporary construction facilities, stockpiling or storage sites not otherwise provided.

4.2. Subsurface and Physical Conditions:

4.2.1. CONTRACTOR specifically represents that it has carefully examined the plans, the geotechnical report, if any, and the site of the proposed Work and is thoroughly familiar with all of the conditions surrounding construction of the Project, having had the opportunity to conduct any and all additional inquiry, tests and investigation that he/she deems necessary and proper. CONTRACTOR acknowledges the receipt of the geotechnical report, if any, and agrees that the

report, while it is an accurate record of the geotechnical conditions at the boring locations, is not a guarantee of specific site conditions which may vary between boring locations.

- 4.2.2.** CONTRACTOR must notify OWNER in writing as soon as reasonably possible, but no later than three (3) calendar days, if unforeseen conditions are encountered at the site which are (i) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (ii) unknown physical conditions of an unusual nature, that differ materially from those normally encountered in the type of work being performed under this Contract. CONTRACTOR may not disturb the conditions until OWNER conducts an investigation. Owner's Representative and E/A will promptly investigate such conditions with E/A. If it is determined that such conditions differ materially and cause an increase or decrease in the CONTRACTOR's cost of or time required for performance of any part of the Work, Owner's Representative will recommend an equitable adjustment in the Contract Amount or Contract Time, or both. If it is determined that such conditions are not materially different from those indicated in the Contract Documents, Owner's Representative will notify CONTRACTOR in writing of such findings and the Contract will not be adjusted. CONTRACTOR may dispute such a determination in accordance with Article 16.
- 4.2.3.** Notwithstanding any other provision of this Contract, CONTRACTOR is solely responsible for the location and protection of any and all public utility lines and utility customer service lines in the Work area. "Public utility lines" means the utility distribution and supply system, and "utility customer service lines" means the utility lines connecting customers to the utility distribution and collection system. Generally, existing utility customer service line connections are not shown on the Drawings. CONTRACTOR shall notify "One Call" and exercise due care to locate, mark, uncover and otherwise protect all such lines in the construction zone and any of CONTRACTOR's work or storage areas. CONTRACTOR's responsibility for the location and protection of utilities is primary and nondelegable. **CONTRACTOR shall indemnify or reimburse such expenses or costs (including fines that may be levied against OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the work area. OWNER reserves the right to repair any damage CONTRACTOR causes to such utilities at CONTRACTOR's expense. If a public line and/or customer service line is damaged by CONTRACTOR, CONTRACTOR shall give verbal notice within one (1) hour and written notice within twenty- four (24) hours to the Owner's Representative.**
- 4.2.4.** CONTRACTOR shall take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature shall be disturbed without written permission of OWNER and Texas Historical Commission. When such objects are uncovered unexpectedly, CONTRACTOR shall stop all Work in close proximity and notify Owner's Representative and Texas Historical Commission of their presence and shall not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on OWNER's property shall remain property of State of Texas, Texas Historical Commission conforming to Texas Natural Resources Code. If it is determined by OWNER, in consultation with Texas Historical Commission, that exploration or excavation of primitive records or antiquities on Project site is necessary to avoid loss, CONTRACTOR

shall cooperate in salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Amount and/or Contract Time will be equitably adjusted.

4.3. Reference Points: Unless otherwise specified, all control lines and bench marks suitable for use in layout will be furnished by OWNER. Lay out of the Work shall be performed in accordance with Division 1. Controls, bench marks and property boundary markers shall be carefully preserved by CONTRACTOR by use of flags, staffs or other visible devices and in case of destruction or removal by CONTRACTOR or its employees, such controls and bench marks shall be replaced by a Registered Professional Land Surveyor at CONTRACTOR's expense. City of Austin survey monuments damaged by CONTRACTOR will be reestablished by OWNER at CONTRACTOR's expense.

4.4. Hazardous Materials:

4.4.1. To the extent provided by applicable law, OWNER shall be responsible for any hazardous material uncovered or revealed at the site which was not shown, indicated or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. CONTRACTOR shall immediately notify Owner's Representative of any suspected hazardous materials encountered before or during performance of the Work and shall take all necessary precautions to avoid further disturbance of the materials.

4.4.2. CONTRACTOR shall be responsible for any hazardous materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.4.3. No asbestos-containing materials shall be incorporated into the Work or brought on Project site without prior approval of OWNER. The CONTRACTOR shall not knowingly use, specify, request or approve for use any asbestos containing materials or lead-based paint without the OWNER'S written approval. When a specific product is specified, the CONTRACTOR shall endeavor to verify that the product does not include asbestos containing material.

4.4.4. Refer to Division 1 for hazardous material definitions and procedures.

.1 Unless otherwise expressly provided in the Contract Documents to be part of the Work, CONTRACTOR is not responsible for any unexpected Hazardous Materials encountered at the site. Upon encountering any Hazardous Conditions, CONTRACTOR must stop Work immediately in the affected area and duly notify OWNER and, if required by applicable law or regulations, all government or quasi-government entities with jurisdiction over the Project or site.

.2 Upon receiving notice of the presence of suspected Hazardous Materials, OWNER shall take the necessary measures required to ensure that the Hazardous Materials are remediated or rendered harmless. Such necessary measures shall include OWNER retaining qualified independent experts to (i) ascertain whether Hazardous Materials have actually been encountered, and, if they have been encountered, (ii) prescribe the remedial measures that OWNER must take either to remove the Hazardous Materials or render the Hazardous Materials harmless.

.3 CONTRACTOR shall be obligated to resume Work at the affected area of the Project only after OWNER's Representative provides written certification that (i) the Hazardous Materials have been removed or rendered harmless and

(ii) all necessary approvals have been obtained from all government and quasi- government entities having jurisdiction over the Project or site. The CONTRACTOR shall be responsible for continuing the Work in the unaffected portion of the Project and site.

- .4 CONTRACTOR will be entitled, in accordance with these General Conditions, to an adjustment in its Contract Amount and/or Contract Time(s) to the extent CONTRACTOR's cost and/or time of performance have been adversely impacted by the presence of Hazardous Materials.
- .5 Notwithstanding the preceding provisions of this Section 4.1, OWNER is not responsible for Hazardous Materials introduced to the Site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable. **CONTRACTOR shall indemnify, defend and hold harmless OWNER and OWNER's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those hazardous materials introduced to the site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable.**

4.4.5. CONTRACTOR shall be responsible for use, storage and remediation of any hazardous materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers or anyone else for whom CONTRACTOR is responsible.

ARTICLE 5 - BONDS AND INSURANCE

5.1. Surety and Insurance Companies: All bonds and insurance required by the Contract Documents shall be obtained from solvent surety or insurance companies that are duly licensed by the State of Texas and authorized to issue bonds or insurance policies for the limits and coverages required by the Contract Documents. The bonds shall be in a form acceptable to OWNER and shall be issued by a surety which complies with the requirements of Texas Insurance Code, Title 12, Chapter 3503. The surety must obtain reinsurance for any portion of the risk that exceeds 10% of the surety's capital and surplus. For bonds exceeding \$100,000, the surety must also hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance for any liability in excess of \$1,000,000 from a reinsurer that is authorized as a reinsurer in Texas or holds a certificate of authority from the U.S. Secretary of the Treasury. In the event that the proposed surety for a contract award in excess of \$100,000 does not hold a certificate of authority from the U.S. Secretary of the Treasury and/or its proposed reinsurer does not hold a certificate of authority from the U.S. Secretary of the Treasury, the OWNER may require additional financial solvency information from the Bidder/Contractor and the proposed surety company and/or reinsurer as part of the 00400 Statement of Bidders Experience and determination of bidder responsibility in the award of the Contract.

5.2. Workers' Compensation Insurance Coverage:

5.2.1. Definitions:

- .1 Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (DWC-81, DCW-82, DCW-83, or DCW84), showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on the Project, for the duration of the Project.
- .2 Duration of the Project - includes the time from the beginning of the Work on the Project until the CONTRACTOR's/ person's Work on the Project has been completed and accepted by OWNER.

- .3** Persons providing services on the Project ("subcontractor" in Texas Labor Code, Section 406.096) - includes all persons or entities performing all or part of the services the CONTRACTOR has undertaken to perform on the Project, regardless of whether that person contracted directly with the CONTRACTOR and regardless of whether that person has employees. This includes, without limitation, independent contractors, Subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.
- 5.2.2.** CONTRACTOR shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the CONTRACTOR providing services on the Project, for the duration of the Project.
- 5.2.3.** CONTRACTOR must provide a certificate of coverage to OWNER prior to being awarded the Contract.
- 5.2.4.** If the coverage period shown on the CONTRACTOR's current certificate of coverage ends during the duration of the Project, the CONTRACTOR must, prior to the end of the coverage period, file a new certificate of coverage with OWNER showing that coverage has been extended.
- 5.2.5.** CONTRACTOR shall obtain from each person providing services on the Project, and provide to OWNER:
- .1** A certificate of coverage, prior to that person beginning Work on the Project, so OWNER will have on file certificates of coverage showing coverage for all persons providing services on the Project; and
 - .2** No later than seven (7) days after receipt by CONTRACTOR, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.
- 5.2.6.** CONTRACTOR shall retain all required certificates of coverage for the duration of the Project and for one (1) year thereafter.
- 5.2.7.** CONTRACTOR shall notify OWNER in writing by certified mail or personal delivery, within ten (10) days after CONTRACTOR knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.
- 5.2.8.** CONTRACTOR shall post on each Project site a notice, in the text, form and manner prescribed by the Texas Workers' Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.
- 5.2.9.** CONTRACTOR shall contractually require each person with whom it contracts to provide services on a Project, to:
- .1** Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;

- .2 Provide to CONTRACTOR, prior to that person beginning Work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
 - .3 Provide CONTRACTOR, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - .4 Obtain from each other person with whom it contracts, and provide to CONTRACTOR: a) a certificate of coverage, prior to the other person beginning Work on the Project; and b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
 - .5 Retain all required certificates of coverage on file for the duration of the Project and for one (1) year thereafter;
 - .6 Notify OWNER in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
 - .7 Contractually require each person with whom it contracts, to perform as required by paragraphs 5.2.9.1 - 5.2.9.7, with the certificates of coverage to be provided to the person for whom they are providing services.
- 5.2.10.** By signing this Contract or providing or causing to be provided a certificate of coverage, CONTRACTOR is representing to OWNER that all employees of the CONTRACTOR who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Texas Worker's Compensation Commission's Division of Self- Insurance Regulation. Providing false or misleading information may subject CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.
- 5.2.11.** CONTRACTOR's failure to comply with any of these provisions is a breach of Contract by CONTRACTOR which entitles OWNER to declare the Contract void if CONTRACTOR does not remedy the breach within ten (10) days after receipt of notice of breach from OWNER.
- 5.3. Other Bond and Insurance Requirements:** For additional insurance requirements, refer to the Supplemental General Conditions.
- 5.4. Bonds:**
- 5.4.1. General.**
- .1 Bonds, when required, shall be executed on forms furnished by or acceptable to OWNER. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.
 - .2 If the surety on any bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of the preceding paragraph, CONTRACTOR shall within ten (10) days thereafter substitute another bond

and surety, both of which must be acceptable to OWNER.

- .3 When Performance Bonds and/or Payment Bonds are required, each shall be issued in an amount of one hundred percent (100%) of the Contract Amount as security for the faithful performance and/or payment of all CONTRACTOR's obligations under the Contract Documents. Performance Bonds and Payment Bonds shall be issued by a solvent surety company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by OWNER pursuant to applicable law. Any surety duly authorized to do business in Texas may write Performance and Payment Bonds on a project without reinsurance to the limit of ten percent (10%) of its capital and surplus. Such a surety must reinsure any obligations over ten percent (10%).

5.4.2. Performance Bond.

- .1 If the Contract Amount exceeds \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610.
- .2 If the Contract Amount exceeds \$25,000 but is less than or equal to \$100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610, unless the original Contract Time is 60 Calendar Days/40 Working Days or less, in which case CONTRACTOR can agree to the following terms and conditions for payment in lieu of providing a Performance Bond: no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER; CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.
- .3 If the Contract Amount is less than or equal to \$25,000, CONTRACTOR will not be required to furnish a Performance Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the following terms and conditions: CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.
- .4 If a Performance Bond is required to be furnished, it shall extend for the one (1) year warranty period.

5.4.3. Payment Bond.

- .1 If the Contract Amount exceeds \$50,000, CONTRACTOR shall furnish OWNER with a Payment Bond in the form set out in Section 00620.
- .2 If the Contract Amount is less than or equal to \$50,000, CONTRACTOR will not be required to furnish a Payment Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the terms and conditions specified in paragraph 5.4.2.3.

- 5.4.4. Maintenance Bond:** If the Contract Documents contemplate a period of maintenance beyond the one (1) year contractual warranty period, OWNER agrees that any bond to be required for such maintenance work will be in the amount of the maintenance work during any extended maintenance period.

ARTICLE 6- CONTRACTOR'S RESPONSIBILITIES

6.1. Supervision and Superintendence:

- 6.1.1.** CONTRACTOR shall supervise, inspect and direct the Work competently and

efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

- 6.1.2.** CONTRACTOR shall have a competent, qualified Superintendent on the Work at all times that work is in progress. To be qualified, at a minimum, the Superintendent must be effective at (a) communicating both verbally and in writing with the OWNER's representative; (b) receiving and fulfilling instructions from the Owner's Representative; (c) supervising and directing the construction of the Work; (d) reading and interpreting the plans and specifications; (e) writing, preparing and submitting necessary paperwork; and (f) understanding work sequencing and scheduling. The Superintendent will be CONTRACTOR's representative on the Work and shall have the authority to act on the behalf of CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to CONTRACTOR. Either CONTRACTOR or the Superintendent shall provide a cellular telephone number and an emergency and home telephone number at which one or the other may be reached if necessary when work is not in progress. The Superintendent must be an employee of the CONTRACTOR, unless such requirement is waived in writing by the Owner's Representative. If the CONTRACTOR proposes a management structure with a Project Manager supervising, directing, and managing construction of the work in addition to or in substitution of a Superintendent, the requirements of these Construction Documents with respect to the Superintendent shall likewise apply to any such Project Manager.
- .1 CONTRACTOR shall present the resume of the proposed Superintendent to the Owner's Representative showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. If, in the opinion of the Owner's Representative, the proposed Superintendent does not indicate sufficient experience in line with the Work, he/she will not be allowed to be the designated Superintendent for the Work.
 - .2 The Superintendent shall not be replaced without Written Notice to Owner's Representative. If CONTRACTOR deems it necessary to replace the Superintendent, CONTRACTOR shall provide the necessary information for approval, as stated above, on the proposed new Superintendent.
 - .3 A qualified substitute Superintendent may be designated in the event that the designated Superintendent is temporarily away from the Work, but not to exceed a time limit acceptable to the Owner's Representative. CONTRACTOR shall replace the Superintendent upon OWNER's request in the event the Superintendent is unable to perform to OWNER's satisfaction.

6.2. Labor, Materials and Equipment:

- 6.2.1.** CONTRACTOR shall maintain a work force adequate to accomplish the Work within the Contract Time. CONTRACTOR agrees to employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any alcoholic or other intoxicating beverages, illegal drugs or controlled substances while on the job or on OWNER's property, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job. Subject to the applicable provisions of Texas law, CONTRACTOR,

Subcontractors, Sub-subcontractors, and their employees may not use or possess any firearms or other weapons while on the job or on OWNER'S property. If OWNER or Owner's Representative notifies CONTRACTOR that any worker or representative of Contractor is incompetent, disorderly, abusive, or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms in contravention of the applicable provisions of Texas law, or has possessed or was under the influence of alcohol or drugs on the job, CONTRACTOR shall immediately remove such worker or representative, including an officer or owner of CONTRACTOR, from performing Contract Work, and may not employ such worker or representative again on Contract Work without OWNER's prior written consent. CONTRACTOR shall at all times maintain good discipline and order on or off the site in all matters pertaining to the Project. Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) for Building Construction and Heavy and Highway Trades "AS APPLICABLE" and/or the minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the minimum wage required.

- 6.2.2.** Unless otherwise specified in Division 1, CONTRACTOR shall provide and pay for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
- 6.2.3.** All materials and equipment shall be of good quality and new (including new products made of recycled materials, pursuant to Section 361.426 of the Texas Health & Safety Code), except as otherwise provided in the Contract Documents. If required by Owner's Representative, CONTRACTOR shall furnish satisfactory evidence (reports of required tests, manufacturer's certificates of compliance with material requirements, mill reports, etc.) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.
- 6.2.4.** Substitutes and "Approved Equal" Items:
- .1** Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains words reading that no like, equivalent or "approved equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted by CONTRACTOR, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, to E/A through Owner's Representative under the following circumstances:
 - .1.1** "Approved Equal": If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by E/A as an "approved equal" item, in which case review of the proposed item may, in E/A's sole discretion, be accomplished without compliance with some or all of the requirements

for evaluation of proposed substitute items. CONTRACTOR shall provide E/A with the documentation required for E/A to make its determination.

- .1.2 Substitute Items: If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "approved equal" item under subparagraph 6.2.4.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided in Division 1 to allow E/A to determine that the item of material or equipment proposed is essentially equivalent to that named and a substitute therefor.
 - .2 Substitute Construction Methods and Procedures: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, with prior approval of E/A furnish or utilize a substitute means, method, technique, sequence, or procedure of construction. CONTRACTOR shall submit sufficient information to Owner's Representative to allow E/A, in E/A's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by E/A will be same as that provided for substitute items in Division 1.
 - .3 E/A's Evaluation: E/A will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to subparagraphs 6.2.4.1.1 and 6.2.4.1.2. E/A will be the sole judge of acceptability. No "approved equal" or substitute shall be ordered, installed, or utilized until E/A's review is complete, which will be evidenced by either a Change Order or completion of the Shop Drawing review procedure. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety bond with respect to any "approved equal" or substitute or for any other delay or disruption to the Critical Path of the Project Schedule attributable to any such substitution. OWNER shall not be responsible for any delay due to review time for any "approved equal" or substitute.
 - .4 CONTRACTOR's Expense: All data and documentation to be provided by CONTRACTOR in support of any proposed "approved equal" or substitute item will be at CONTRACTOR's expense.
 - .5 The approval of the E/A will not relieve the CONTRACTOR from primary responsibility and liability for the suitability and performance of any proposed substitute item, method or procedure and will not relieve CONTRACTOR from its primary responsibility and liability for curing defective Work and performing warranty work, which the CONTRACTOR shall cure and perform, regardless of any claim the CONTRACTOR may choose to advance against the E/A or manufacturer.
- 6.2.5.** CONTRACTOR agrees to assign to OWNER any rights it may have to bring antitrust suits against its Suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. CONTRACTOR further agrees to cooperate with OWNER should OWNER wish to prosecute suits against Suppliers for illegal price fixing.
- 6.3. Progress Schedule:** Unless otherwise provided in Division 1, CONTRACTOR shall adhere to the Baseline Schedule established in accordance with paragraph 2.6 as it may be

adjusted from time to time as provided below:

- 6.3.1.** CONTRACTOR shall submit to Owner's Representative for review and approval any proposed adjustments in the Progress Schedule that will not change the Contract Times or Milestones on a monthly basis. Any such proposed adjustments must be substantiated with documentation of any changes to the underlying logic of the Progress Schedule. CONTRACTOR's Progress Schedule must show how the CONTRACTOR will consistently advance the progress of the Work in accordance with the Critical Path of the Work and the Contract Time or Milestones. Such adjustments will conform generally to the Progress Schedule then in effect and additionally will comply with any provisions of Division 1 applicable thereto.
- 6.3.2.** Proposed adjustments in the Progress Schedule that will change the Contract Times or Milestones shall be submitted in accordance with the requirements of Article 12. Any such proposed adjustments must be substantiated with documentation of any changes to the underlying logic of the Progress Schedule. Such adjustments may only be made by a Change Order or Time Extension Request in accordance with Article 12.

6.4. Concerning Subcontractors, Suppliers and Others:

- 6.4.1.** Assignment: CONTRACTOR agrees to retain direct control of and give direct attention to the fulfillment of this Contract. CONTRACTOR agrees not to, by Power of Attorney, or otherwise, assign said Contract without the prior written consent of OWNER. In addition, without OWNER'S written consent, the CONTRACTOR will not subcontract the performance of the entire Work or the supervision and direction of the Work.
- 6.4.2.** Award of Subcontracts for Portions of the Work: CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom OWNER may have reasonable objection. OWNER will communicate such objections by Written Notice. If OWNER requires a change without good cause of any Subcontractor, person or organization previously accepted by OWNER, the Contract Amount shall be increased or decreased by the difference in the cost occasioned by any such change, and appropriate Change Order shall be issued. CONTRACTOR shall not substitute any Subcontractor, person or organization that has been accepted by OWNER, unless the substitute has been accepted in writing by OWNER. No acceptance by OWNER of any Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER to reject defective Work.
- 6.4.3.** CONTRACTOR shall enter into written agreements with all Subcontractors and Suppliers which specifically binds the Subcontractors or Suppliers to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and E/A. The OWNER reserves the right to specify that certain requirements shall be adhered to by all Subcontractors and Sub-subcontractors as indicated in other portions of the Contract Documents and these requirements shall be made a part of the agreement between CONTRACTOR and Subcontractor or Supplier. Subject to and in accordance with the above requirements, the CONTRACTOR must provide and will be deemed for all purposes to have provided in its contracts with major Subcontractors or Suppliers on the Project (those contracts of more than \$10,000) the following specific provision: alternative dispute resolution (paragraphs 16.2 and 16.3), which shall be mandatory in the event of a subcontractor or supplier claim and a prerequisite for the submission

of any derivative claim. The CONTRACTOR's standard subcontract form is subject to the OWNER's review and approval. The OWNER may request and the CONTRACTOR will provide within five (5) working days a copy of any subcontract requested by the OWNER.

- 6.4.4.** CONTRACTOR shall be fully responsible to OWNER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or E/A to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by laws and regulations.
- 6.4.5.** CONTRACTOR shall be solely responsible for efficiently scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR in order to avoid any delays or inefficiencies in the prosecution of the Work. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner's Representative through CONTRACTOR.
- 6.4.6.** The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.
- 6.4.7.** CONTRACTOR shall pay each Subcontractor and Supplier their appropriate share of payments made to CONTRACTOR not later than ten (10) Calendar Days of CONTRACTOR's receipt of payment from OWNER. Upon request from Owner, the CONTRACTOR has two (2) Working Days to provide documentation verifying Payment to Subcontractor(s). The CONTRACTOR is required to notify the Subcontractor(s) in writing of rejection of Application for Payment within two (2) Working Days following notification by Owner. Failure of CONTRACTOR to make payments to Subcontractors or for labor, materials or equipment in accordance to this contract, may be cause to reject future Bids by the CONTRACTOR in accordance with Section 00100 9.B.4 and may be cause to reject payment in accordance with 00700 14.4.1.3.
- 6.4.8.** To the extent allowed by Texas law, the OWNER shall be deemed to be a third party beneficiary to each subcontract and may, if OWNER elects, following a termination of the CONTRACTOR, require that the Subcontractor(s) perform all or a portion of unperformed duties and obligations under its subcontract(s) for the benefit of the OWNER, rather than the CONTRACTOR; however, if the OWNER requires any such performance by a Subcontractor for the OWNER's direct benefit, then the OWNER shall be bound and obligated to pay such Subcontractor the reasonable value for all Work performed by such Subcontractor to the date of the termination of the CONTRACTOR, less previous payments, and for all Work performed thereafter. In the event that the OWNER elects to invoke its right under this section, OWNER will provide notice of such election to the CONTRACTOR and the affected Subcontractor(s).

6.5. Patent Fees and Royalties:

- 6.5.1.** CONTRACTOR shall be responsible at all times for compliance with applicable patents or copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.
- 6.5.2.** CONTRACTOR shall pay all royalties and license fees and shall provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not a particular design, device, material, or process is specified by OWNER.
- 6.5.3.** **CONTRACTOR shall defend all suits or claims for infringement of any patent or copyright and shall save OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR's process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event CONTRACTOR shall indemnify and save harmless OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against OWNER.**
- 6.5.4.** OWNER shall have the right to stop the Work and/or terminate this Agreement at any time in the event CONTRACTOR fails to disclose to OWNER that CONTRACTOR's work methodology includes the use of any infringing design, device, material or process.
- 6.6. Permits, Fees:** Unless otherwise provided in the Supplemental General Conditions, CONTRACTOR shall obtain and pay for all construction permits, licenses and fees required for prosecution of the Work.
- 6.7. Laws and Regulations:**
- 6.7.1.** CONTRACTOR shall give all notices and comply with all laws and regulations applicable to furnishing and performing the Work, including arranging for and obtaining any required inspections, tests, approvals or certifications from any public body having jurisdiction over the Work or any part thereof. Except where otherwise expressly required by applicable laws and regulations, neither OWNER nor E/A shall be responsible for monitoring CONTRACTOR's compliance with any laws and regulations.
- 6.7.2.** Maintaining clean water, air and earth or improving thereon shall be regarded as of prime importance. CONTRACTOR shall plan and execute its operations in compliance with all applicable Federal, State and local laws and regulations concerning control and abatement of water pollution and prevention and control of air pollution.
- 6.7.3.** If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to laws or regulations, CONTRACTOR shall bear all claims, costs, losses and damages arising therefrom; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with laws and regulations, but this does not relieve CONTRACTOR of CONTRACTOR's obligations under Article 3.
- 6.8. Taxes:**
- 6.8.1.** CONTRACTOR shall pay only those sales, consumer, use and other similar taxes

required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Texas in the performance of this public works contract.

- 6.8.2.** OWNER is an exempt organization as defined by Chapter 11 of the Property Tax Code of Texas and is thereby exempt from payment of Sales Tax under Chapter 151, Limited Use Sales, Excise and Use Tax, Texas Tax Code, and Article 1066 (C), Local Sales and Use Tax Act, Revised Civil Statutes of Texas.

6.9. Use of Premises:

- 6.9.1.** CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by laws and regulations, right-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of or in connection with the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. **CONTRACTOR shall indemnify, defend and hold harmless OWNER, E/A, E/A'S Consultants and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including court costs and reasonable attorney's fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the work or failure to perform the Work.**
- 6.9.2.** During the progress of the Work and on a daily basis, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall, at a minimum, restore to original condition all property not designated for alteration by the Contract Documents. If the CONTRACTOR fails to clean up at the completion of the Work, OWNER may do so and the cost thereof will be charged against the CONTRACTOR.
- 6.9.3.** CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.
- 6.10. Record Documents:** CONTRACTOR shall maintain in a safe place at the site, or other location acceptable to OWNER, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.5) in good order and annotated to show all changes made during construction. These record documents together with all final samples and all final Shop Drawings will be available to OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, these record

documents, samples and Shop Drawings shall be promptly delivered to Owner's Representative.

6.11. Safety and Protection:

6.11.1. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Upon request, and prior to installation of measures, CONTRACTOR shall submit a site security plan for approval by OWNER. By reviewing the plan or making recommendations or comments, OWNER will not assume liability nor will CONTRACTOR be relieved of liability for damage, injury or loss. CONTRACTOR shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:

- .1 all persons on the Work site or who may be affected by the Work;
- .2 all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
- .3 other property at the site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

6.11.2. CONTRACTOR shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of underground facilities, and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.11.1.2 and 6.11.1.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, Subcontractor, Supplier or any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER, or E/A, or E/A's consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the faults or negligence of CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and Owner's Representative has issued a notice to OWNER and CONTRACTOR in accordance with Article 14 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion). Without limitation, CONTRACTOR shall comply with the following specific provisions:

It shall be the duty and responsibility of CONTRACTOR and all of its subcontractors to be familiar with and comply with 29 USC Section 651, et seq., the Occupational Safety and Health Act of 1970, as amended ("OSHA") and to enforce and comply with all provisions of this Act.

The CONTRACTOR and all of its subcontractors shall comply with all applicable requirements of Subpart P of Part 1926 of 29 C.F.R, OSHA Safety and Health Standards, Texas Health and Safety Code Section 756.023, as amended, and shall submit a unit price for the particular excavation safety systems to be utilized by the Contractor for all excavations which exceed a depth of five feet (5').

Before commencing any excavation which will exceed a depth of five feet (5'), the CONTRACTOR shall provide the Owner with detailed plans and specifications regarding the safety systems to be utilized. Said plans and specifications shall include a certification from a Texas licensed professional engineer indicating full compliance with the OSHA provisions cited above.

6.11.3. Safety Representative: CONTRACTOR shall designate in writing a qualified and experienced safety representative (the "Safety Representative") at the site whose duties and responsibilities shall include safety training; identifying and mitigating hazardous conditions and unsafe work practices; and developing, maintaining and supervising the implementation of safe work practices and safety programs as deemed necessary and appropriate for the Project. The term "Safety Representative" includes any designated Safety Supervisor, Superintendent or Safety Manager. The Safety Representative shall exercise due diligence in the execution of all Project related safety duties. Upon request of OWNER, CONTRACTOR shall provide certifications or other acceptable documentation of the Safety Representative's qualifications. The following requirements will be effective as of September 1, 2010:

- .1 The Safety Representative shall present certification of completion of the OSHA 30-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html
- .2 The Safety Representative shall verify that all construction workers (defined as persons covered by a prevailing wage determination) on the job site, whether employed by the CONTRACTOR or subcontractors, have completed the OSHA 10-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html. The Safety Representative must receive a certificate of training completion before allowing a worker on site and shall have all such certificates available for inspection by the OWNER.
- .3 The Safety Representative shall ensure that workers, including designated competent persons, have completed all applicable OSHA specific or other training needed to perform their job assignments. Training topics applicable to the scope of the current Project may include, but are not limited to, scaffolds, fall protection, cranes, excavations, electrical safety, tools, concrete and masonry construction, steel erection, operation of motor vehicles and mechanized equipment.
- .4 The Safety Representative shall post notice on the site of the Work stating that all workers shall have completed OSHA Construction Industry Training. The Owner may require, and the Safety Representative should consider providing a means of readily identifying workers who have completed the required training to monitor compliance with these requirements.
- .5 The Safety Representative shall ensure that all required OSHA and Workers Compensation notices to workers are posted in English and Spanish at one or more conspicuous locations on the work site.

6.11.4. Hazard Communication Programs: CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with laws and regulations.

6.11.5. Emergencies:

- .1 In emergencies affecting the safety or protection of persons or the Work at the site or adjacent thereto, CONTRACTOR, without special instruction or

authorization from OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. CONTRACTOR shall give Owner's Representative telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner's Representative determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Directive or Change Order will be issued to document the consequences of such action; otherwise OWNER will not be responsible for CONTRACTOR's emergency action.

- .2 Authorized agents of CONTRACTOR shall respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project site of CONTRACTOR or his agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should CONTRACTOR and/or their agent fail to respond and take action to alleviate such an emergency situation, OWNER may direct other forces to take action as necessary to remedy the emergency condition, and OWNER will deduct any cost of such remedial action from the funds due CONTRACTOR under this Contract.
- .3 In the event there is an accident involving injury to any individual or damage to any property on or near the Work, CONTRACTOR shall provide to Owner's Representative verbal notification within one (1) hour and written notification within twenty-four (24) hours of the event and shall be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports, police accident reports and other documentation that describes the event. Copies of such documentation shall be provided to Owner's Representative, for OWNER's and E/A's records, within forty-eight (48) hours of the event. Contractor shall cooperate with OWNER on any OWNER investigation of any such incident.

6.11.6. Rest Breaks:

- .1 Except as provided in subsection 6.11.6.2 below, an employee performing construction activity at a construction site is entitled to a rest break of not less than ten (10) minutes for every four (4) hours worked. No employee may be required to work more than 3.5 hours without a rest break. A rest break means a break from work within working hours, excluding meal breaks, during which an employee may not work. A rest break shall be scheduled as near as possible to the midpoint of the work period.
- .2 An employee is not entitled to a rest break under subsection 6.11.6.1 on any day the employee works less than 3.5 hours or spends more than half of his or her work time engaged in non-strenuous labor in a climate controlled environment.
- .3 A sign describing the requirements of this Section 6.11.6 in English and Spanish shall be posted by the employer in each establishment subject to the requirement of a rest break in a conspicuous place or places where notices to employees are customarily posted, in accordance with the OWNER's then current rules for size, content, and location of such signage.
- .4 The violation of Ordinance No. 20100729-047, enacted July 29, 2010, which

establishes the rest break requirements set forth above, may be enforced with criminal penalties and civil remedies, as set forth in the Ordinance.

6.11.7. If the Contractor fails to carry out the Work in accordance with the Contract Documents so that a safety violation has occurred, the Owner may order the Contractor to stop the Work or any portion thereof, until the cause for such order has been eliminated. However, the right of the Owner to stop the Work under this paragraph shall not give rise to a duty on the part of the Owner to supervise the Contractor's Work or to control the Contractor's means and methods or to exercise this right for the benefit of the Contractor or any other person or entity. All time lost due to Project shut down will be the Contractor's sole responsibility, will be charged against the Contract Time, and the Contractor will be responsible for any and all expenses incurred. This provision is in addition to and supplemental to the applicable provisions of the Project's ROCIP Safety Manual.

6.11.8. Confined Space Program

.1 Contractor acknowledges and agrees that the Owner is temporarily transferring management and control of the site of the Work to the Contractor for the purpose of constructing the Project. The Contractor's responsibilities to manage the Work includes the responsibility to manage the property for purposes of compliance with 29 CFR 1926 subpart AA. To the best of Owner's knowledge and belief, Owner has provided the following information in the plans and specifications and other Contract Documents: (i) the location of each known permit space, (ii) the hazards or potential hazards in each space or the reason it is a permit space; and (iii) any precautions that the Owner or any previous contractor has implemented for the protection of employees in the permit space. This transfer will result in the Contractor being both the host employer and the controlling contractor for this portion of the Work.

6.12. Continuing the Work: CONTRACTOR shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as OWNER and CONTRACTOR may otherwise agree in writing.

6.13. CONTRACTOR's General Warranty and Guarantee:

6.13.1. CONTRACTOR warrants and guarantees to OWNER that all Work will conform to the plans and specifications, be performed in a good and workmanlike manner in accordance with the Contract Documents and will not be defective. This warranty will survive the termination or expiration of the Contract. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

- .1 abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or
- .2 normal wear and tear under normal usage.

6.13.2. CONTRACTOR's obligation to perform and complete the Work in a good and workmanlike manner in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

- .1 observations by Owner's Representative and/or E/A;
- .2 recommendation of any progress or final payment by Owner's Representative;
- .3 the issuance of a certificate of Substantial Completion or any payment by

OWNER to CONTRACTOR under the Contract Documents;

- .4 use or occupancy of the Work or any part thereof by OWNER;
- .5 any acceptance by OWNER or any failure to do so;
- .6 any review of a Shop Drawing or sample submittal;
- .7 any inspection, test or approval by others; or
- .8 any correction of defective Work by OWNER.

6.14. INDEMNIFICATION:

6.14.1. CONTRACTOR shall defend, indemnify and hold harmless OWNER, E/A, E/A'S Consultants and Sub consultants and their respective officers, directors, partners, employees, agents and other Consultants and any of them (the "INDEMNIFIED PARTIES") from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage:

- .1 Is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and**
- .2 Is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of the INDEMNIFIED PARTIES hereunder or whether liability is imposed upon such INDEMNIFIED PARTY by laws and regulations regardless of the negligence of any such person or entity.**

In the event that indemnification of the INDEMNIFIED PARTIES is prohibited by law, CONTRACTOR shall nonetheless be solely responsible for any liability arising out of or resulting from the performance of the Work, subject to the limitations set forth above, and shall indemnify and hold harmless the remaining INDEMNIFIED PARTIES, who may be legally indemnified, from such liability of the CONTRACTOR and the associated costs described above.

6.14.2. The indemnification obligation under paragraph 6.14.1 shall not be limited in any way by any limitation on the amount or type of damages, or compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.14.3. The obligations of CONTRACTOR under paragraph 6.14.1 shall not extend to the liability of OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or agents caused primarily by negligent preparation of maps, drawings, surveys, designs or

specifications upon which is placed the applicable state-authorized design professional seal of OWNER's, E/A's or E/A's consultant's officers, directors, partners, employees or agents.

- 6.14.4.** In the event CONTRACTOR fails to follow OWNER's directives concerning use of the site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, CONTRACTOR shall indemnify OWNER against all costs resulting from such claims.
- 6.14.5.** In the event CONTRACTOR unreasonably delays progress of the work being done by others on the site so as to cause loss for which OWNER becomes liable, then CONTRACTOR shall indemnify OWNER from and reimburse OWNER for such loss.
- 6.15.** Survival of Obligations: All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.
- 6.16. Losses from Natural Causes:** Unless otherwise specified, all loss or damage to CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, shall be sustained and borne by CONTRACTOR at its own cost and expense.
- 6.17. Notice of Claim:** Should CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of OWNER or of any of OWNER's employees or agents or others for whose acts OWNER is liable, a Claim must be made to the other party within thirty (30) calendar days of the event giving rise to such injury or damage. The provisions of this paragraph 6.17 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.
- 6.18. Liquidated Damages:** CONTRACTOR or its Surety shall be liable for liquidated damages for the failure of the CONTRACTOR to timely complete the Work or any portion thereof within the Contract Time.

ARTICLE 7-OTHER WORK

- 7.1** OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other contracts therefor, or have other work performed by utility owners. CONTRACTOR and OWNER agree to and shall use best efforts to cooperate and coordinate the Work with others performing work and other work related to the Project in order to avoid conflicts and delays in the Work. If CONTRACTOR believes that delay or additional cost is involved because of such action by OWNER, CONTRACTOR may make a Claim as provided in Article 11 or 12.
- 7.2** CONTRACTOR shall afford other contractors who are in a contract with OWNER and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate

with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of Owner's Representative and the other contractors whose work will be affected. CONTRACTOR shall promptly remedy damage wrongfully caused by CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.

- 7.3** If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to Owner's Representative in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.
- 7.4** OWNER shall provide for coordination of the activities of the OWNER's own forces and of each separate contractor with the Work of CONTRACTOR, who shall cooperate with them. CONTRACTOR shall participate with other separate contractors and Owner's Representative in reviewing their construction Progress Schedules when directed to do so. On the basis of such review, CONTRACTOR shall make any revisions to the construction Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed upon construction Progress Schedules shall then constitute the Progress Schedules to be used by CONTRACTOR, separate contractors and OWNER until subsequently revised.
- 7.5** Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.

ARTICLE 8- OWNER'S RESPONSIBILITIES

- 8.1** Prior to the start of construction, OWNER will designate in writing a person or entity to act as Owner's Representative during construction. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through Owner's Representative.
- 8.2** OWNER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto. OWNER is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to furnishing or performing the Work. OWNER is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of OWNER to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.
- 8.3** OWNER is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work. CONTRACTOR acknowledges and agrees that OWNER'S direction to perform Work in accordance with the approved Progress Schedule is not a demand for acceleration or a dictation of CONTRACTOR'S means or methods.
- 8.4** Information or services under the OWNER's control shall be furnished by the OWNER with reasonable promptness to avoid delay in orderly progress of the Work. The OWNER shall have a reasonable amount of time to investigate site conditions, review submittals, analyze requests for changes, and to make other decisions in the orderly administration of the Contract. CONTRACTOR must notify the OWNER in writing, if the time for the investigation, review, analysis of any submittals, required for changes or otherwise required for OWNER'S

decision, impacts in any way the Critical Path of the approved Progress Schedule.

- 8.5** The foregoing are in addition to other duties and responsibilities of the OWNER enumerated herein and especially those in respect to Article 4 (Availability of Lands; Subsurface and Physical Conditions; Reference Points), Article 7 (Other Work) and Article 14 (Payments to CONTRACTOR and Completion).
- 8.6** **Notice of Claim:** Should OWNER suffer injury or damage to person or property because of any error, omission or act of CONTRACTOR or of any of CONTRACTOR's employees or agents or others for whose acts CONTRACTOR is liable, a Claim will be made to the other party within thirty (30) calendar days of receipt of actual or constructive notice of the event giving rise to such injury or damage. The provisions of this paragraph 8.6 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

ARTICLE 9- ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION

9.1 E/A's Authority and Responsibilities:

- 9.1.1** The duties and responsibilities and the limitations of authority of E/A during construction, as set forth in the Contract Documents, may be assigned or assumed by the OWNER, but shall not be extended without written consent of OWNER and/or E/A. The assignment of any authority, duties or responsibilities to E/A under the Contract Documents, or under any agreement between OWNER and E/A, or any undertaking, exercise or performance thereof by E/A, is intended to be for the sole and exclusive benefit of OWNER and not for the benefit of CONTRACTOR, Subcontractor, Supplier, or any other person or organization, or for any surety or employee or agent of any of them.
- 9.1.2** E/A will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. E/A is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. E/A is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of E/A to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.
- 9.1.3** E/A is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.
- 9.1.4** If OWNER and E/A agree, E/A will review the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by Article 14, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.
- 9.1.5** The limitations upon authority and responsibility set forth in this paragraph 9.1 shall also apply to E/A's Consultants, Resident Project Representative and assistants.
- 9.2 E/A as Owner's Representative:** E/A may be designated as the Owner's Representative under paragraph 8.1.

- 9.3 Visits to Site:** If OWNER and E/A agree, E/A will make visits to the site at intervals appropriate to the various stages of construction as E/A deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, E/A will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. E/A will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. E/A's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, E/A will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. E/A's visits and on-site observations are subject to all the limitations on E/A's authority and responsibility set forth in paragraph 9.1.
- 9.4 Resident Project Representative:** If OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in paragraph 9.1 and in the Supplemental General Conditions. OWNER may designate another representative or agent to represent OWNER at the site who is not E/A, E/A's consultant, agent or employee.
- 9.5 Clarifications and Interpretations:** E/A may determine that written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by Owner's Representative and will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Amount or the Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in Article 11 or 12.
- 9.6 Rejecting Defective Work:** E/A will recommend that OWNER disapprove or reject Work which E/A believes to be defective, or believes will not produce a completed Project that conforms to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 9.7 Shop Drawings:** Refer to Division 1 for E/A's authority concerning Shop Drawings.

ARTICLE 10 - CHANGES IN THE WORK

10.1. Changes:

- 10.1.1.** Without invalidating the Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such changes in the Work will be authorized by Change Order, Change Directive or Field Order. In the event that the OWNER and the CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another contractor and such work will be considered "Other Work" in accordance with Article 7.
- 10.1.2.** Changes in the Work shall be performed under applicable provisions of the Contract Documents, and CONTRACTOR shall proceed promptly, unless otherwise provided in the Change Order, Change Directive or Field Order. CONTRACTOR's proposals for changes in the Contract Amount and/or Contract Time shall be submitted within ten (10) Calendar Days of request by Owner's Representative, including impacts to the approved Progress Schedule, unless

Owner's Representative grants an extension. OWNER will review each proposal and respond to CONTRACTOR within ten (10) Calendar Days. After review by OWNER, CONTRACTOR shall provide any supporting data requested by Owner's Representative within seven (7) Calendar Days, unless Owner's Representative grants an extension. OWNER will determine within seven (7) Calendar Days whether to pursue the change in Work.

- 10.1.3.** CONTRACTOR shall not be entitled to an increase in the Contract Amount or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.3.1 and 3.3.2, except in the case of an emergency as provided in paragraph 6.11.5 or in the case of uncovering Work as provided in paragraph 13.4.
- 10.1.4.** Except in the case of an emergency as provided in paragraph 6.11.5, a Change Order or Change Directive is required before CONTRACTOR commences any activities associated with a change in the Work which, in CONTRACTOR 's opinion, will result in a change in the Contract Amount and/or Contract Times.
- 10.1.5.** If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Amount or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10.2. Change Orders:

- 10.2.1.** OWNER and CONTRACTOR shall execute appropriate written Change Orders covering:
 - .1 a change in the Work;
 - .2 the amount of the adjustment in the Contract Amount, if any; and
 - .3 the extent of the adjustment in the Contract Time, if any.
- 10.2.2.** An executed Change Order shall represent the complete, equitable, and final amount of adjustment in the Contract Amount and/or Contract Time owed to CONTRACTOR or OWNER as a result of the occurrence or event causing the change in the Work encompassed by the Change Order.

10.3. Change Directives:

- 10.3.1.** Without invalidating the Contract, OWNER may, by written Change Directive, using the Force Account method, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Amount and Contract Time being adjusted as necessary. "Force Account" means a basis of payment for the direct performance of Work with payment based on the actual cost of the labor, equipment and materials furnished and consideration for overhead and profit as set forth in Section 11.5, below. A Change Directive shall be used in the absence of complete and prompt agreement on the terms of a Change Order. Where practicable, any items of Work that may be agreed upon, prior to the performance of Work under this Section, will be included in a separate Change Order. For example, the cost of the installation of additional asphalt may be agreed upon based on the unit prices in the Bid.
- 10.3.2.** If the Change Directive provides for an adjustment to the Contract Amount, the adjustment shall be based on the method provided in paragraph 11.5.
- 10.3.3.** A Change Directive shall be effective immediately and shall be recorded later by

preparation and execution of an appropriate Change Order.

- 10.3.4.** Upon receipt of a Change Directive, CONTRACTOR shall promptly proceed with the change in the Work involved, provided, prior to the commencement of any Work under this section, the CONTRACTOR must submit its proposed Work plan, anticipated schedule, and a list of its work force and equipment proposed to be used in the Work for OWNER'S approval. Upon such approval, CONTRACTOR must promptly commence and make continuous progress in the Work. The OWNER reserves the right to withhold payment for low production or lack of progress.

10.4. Field Order:

- 10.4.1.** Owner's Representative may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Amount or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These shall be accomplished by written Field Order and shall be binding on OWNER and on CONTRACTOR who shall perform the Work involved promptly.

- 10.4.2.** If CONTRACTOR believes that a Field Order would require an adjustment in the Contract Amount and/or Contract Times, CONTRACTOR shall make a prompt written request to Owner's Representative for a Change Order. Any request by CONTRACTOR for an adjustment in Contract Amount and/or Contract Times must be made in writing prior to beginning the work covered by the Field Order.

- 10.5. No Damages for Delay:** CONTRACTOR shall receive no compensation for delays or hindrances to the Work, except when direct and unavoidable extra cost to CONTRACTOR is caused by failure of OWNER to provide information or material, if any, which is to be furnished by OWNER or access to the Work and only to the extent that such acts continue after the CONTRACTOR furnishes OWNER with written notice of such failure. When such extra compensation is claimed a written statement thereof shall be presented by CONTRACTOR to OWNER and if by OWNER found correct shall be approved. If delay is caused by specific orders given by OWNER to stop work or by performance of extra Work or by failure of OWNER to provide material or necessary instructions for carrying on the Work, then such delay will entitle CONTRACTOR to an equivalent extension of time, CONTRACTOR'S application for which shall, however, be subject to approval of OWNER. No such extension of time shall release CONTRACTOR or surety on its performance bond from all CONTRACTOR'S obligations hereunder which shall remain in full force until discharge of the Contract. In no event shall the CONTRACTOR be entitled to any compensation or recovery of any special damages in connection with any delays, including without limitation: consequential damages, lost opportunity costs, impact damages, or other similar damages. The OWNER'S exercise of any of its rights or remedies under the Contract Documents (including without limitation ordering changes in the Work, or directing suspension, rescheduling, or correction of the Work), regardless of the extent or frequency of the OWNER'S exercise of such rights or remedies, shall not be construed as active interference in the CONTRACTOR'S performance of the Work. Except as otherwise provided herein, an extension of Contract Time, to the extent permitted under Article 12, shall be the sole remedy of the CONTRACTOR for any acknowledged delays.

ARTICLE 11 - CHANGE OF CONTRACT AMOUNT

- 11.1.** The Contract Amount is stated in the Agreement and, including authorized adjustments, is the total amount payable by OWNER to CONTRACTOR for performance of the Work under

the Contract Documents.

- 11.2.** The original Contract Amount may not be increased by more than twenty-five percent (25%) and it may not be decreased more than twenty-five percent (25%) without the consent of the CONTRACTOR to such decrease, except in the event of a termination for convenience under paragraph 15.2 or the failure of the City Council to appropriate sufficient funding for the Project, in which events it is agreed that the consent of the CONTRACTOR will not be required.
- 11.3.** The Contract Amount shall only be changed by a Change Order. Any claim for an adjustment in the Contract Amount shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days) after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed covers all known amounts to which claimant is entitled as a result of said occurrence or event. If OWNER and CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Amount shall be determined as set out in Article 16.
- 11.4.** Determination of Value of Work:
- 11.4.1.** The value of any Work covered by a Change Order for an adjustment in the Contract Amount will be determined by one or more of the following methods:
- .1** by application of unit prices contained in the Contract Documents to the quantities of the items involved.
 - .2** by a mutually agreed unit price, or lump sum properly itemized and supported by sufficient substantiating data, including documentation by subcontractors performing the work, to permit evaluation.
 - .3** by cost of Work plus CONTRACTOR's fee for all overhead costs and profit (determined as provided in paragraph 11.5).
 - .4** No cost will be included in the change order for time spent preparing the change order, nor will costs be included for an estimate of time to negotiate the change order costs for machinery, tools, or equipment as described in subparagraph 11.5.3.
- 11.4.2.** Before using the method described in paragraph 11.4.1.3, OWNER and CONTRACTOR agree to negotiate a Change Order using the methods identified in paragraphs 11.4.1.1 and 11.4.1.2, as appropriate, to determine the adjustment in the Contract Amount.
- 11.5. Cost of Work:** If neither of the methods defined in paragraphs 11.4.1.1 nor 11.4.1.2 can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Amount, then the change in the Work will be performed by Change Directive, using the Force Account method, and payment will be made as follows:
- 11.5.1.** For all personnel, CONTRACTOR will receive actual field cost wage rates for each hour that said personnel are actually engaged in such Work, as substantiated by its certified payroll, to which will be added an amount equal to twenty-five percent (25%) of the sum thereof as compensation for CONTRACTOR's total overhead, profit, and small tools. No separate charge will be made by CONTRACTOR or its Subcontractor(s) for organization or overhead expenses. In no case will the rate of wage be less than the minimum shown in the Contract for a particular category. CONTRACTOR will also receive an amount equal to 55% of the wages paid personnel, excluding the 25% compensation provided above, for CONTRACTOR's

and any affected Subcontractor's cost of premiums on public liability insurance, workers' compensation insurance, social security and unemployment insurance. The cost for superintendence, project management, and other salaried employees are considered as included in the twenty five percent (25%) total overhead, profit, and small tools mark-up unless considered necessary and ordered by Owner.

- 11.5.2.** CONTRACTOR will receive the actual cost, including freight charges, of the materials used and installed on such Work, to which costs will be added a sum equal to twenty-five percent (25%) thereof as compensation for CONTRACTOR's and any affected Subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.
- 11.5.3.** For machinery, trucks, power tools, or other similar equipment (the "equipment") agreed to be necessary by OWNER and CONTRACTOR, OWNER will allow CONTRACTOR the Regional and Model Year adjusted Monthly Ownership Cost divided by 176 plus the Hourly Estimated Operating Costs as given in the latest edition of the "Rental Rate Blue Book" as published by EquipmentWatch (1-800-669-3282) for each hour that said equipment is in use on such work. The established equipment rates will be paid for each hour that the equipment is utilized in the Work. In the event that the equipment is used intermittently during the Work, full payment for an eight-hour day will be made if the equipment is not idle more than four (4) hours of the day. If the equipment is idle more than four (4) hours in a day, then payment will be made only for the actual hours worked. No additional compensation will be allowed on the equipment for CONTRACTOR's or any affected Subcontractor's overhead and profit. OWNER may accept an actual rental invoice in lieu of the method of calculation set forth in paragraph 11.5.3 for equipment rented exclusively for Force Account Work or for equipment not included in the Rental Rate Blue Book.
- 11.5.4.** For Subcontractors, CONTRACTOR will receive the approved actual invoice cost plus 5% as compensation for CONTRACTOR's total overhead and profit.
- 11.5.5.** CONTRACTOR will receive an additional 1% of the total of 11.5.1, 11.5.2, 11.5.3, and 11.5.4 as compensation for increased bond costs.
- 11.5.6.** The compensation, as herein provided for, shall be received by CONTRACTOR and any affected Subcontractor as payment in full for work done by Change Directive and will include use of small tools, and total overhead expense and profit. CONTRACTOR and Owner's Representative shall compare records of work done by Change Directive at the end of each day. Copies of these records will be made upon forms provided for this purpose by OWNER and signed by both Owner's Representative and CONTRACTOR, with one copy being retained by OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two (2) working days of presentation does not invalidate the accuracy of the record.

11.6. Unit Price Work:

- 11.6.1.** Where the Contract Documents provide that all or part of the Work is to be unit price Work, initially the Contract Amount will be deemed to include for all unit price work an amount equal to the sum of the established unit price for each separately identified item of unit price work times the estimated quantity of each item as indicated in the Bid. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of Bids and

determining an initial Contract Amount. Determinations of the actual quantities and classifications of unit price work performed by CONTRACTOR will be made by Owner's Representative. Owner's Representative will review with CONTRACTOR the preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

- 11.6.2.** When "plan quantity" is indicated for a Bid item, CONTRACTOR shall be paid amount specified in the Contract Documents without any measurements.
- 11.6.3.** Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.
- 11.6.4.** A Major Item is any individual Bid item in the Contract that has a total cost equal to or greater than five percent (5%) of the original Contract Amount or \$50,000, whichever is greater, computed on the basis of Bid quantities and Contract unit prices or Change Orders.
- 11.6.5.** OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Amount in accordance with Article 11 if:
 - .1** the actual quantity of any Major Item should become as much as twenty percent (20%) more than or twenty percent (20%) less than that in the Bid; or
 - .2** CONTRACTOR presents documentation contesting accuracy of "plan quantity" and Owner's Representative verifies quantity and determines original value is in error by five percent (5%) or more;

Provided, however, in the event a Major Item is reduced by twenty percent (20%) or more of the amount in the Bid, no additional Article 11 profit or overhead will be added, if, due to other additions in the Work, the net value of the Contract Amount is not reduced.

ARTICLE 12 – CHANGE OF CONTRACT TIMES

12.1. Working Day and Calendar Day Contracts

- 12.1.1.** The Contract Times (or Milestones) may only be changed by Change Order or Time Extension Request duly executed by both CONTRACTOR and Owner's Representative. Any claim for an adjustment of the Contract Times (or Milestones) shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days after the start of the occurrence or event giving rise to the delay) and stating the general nature of the delay. Notice of the extent of the delay with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed is the entire adjustment to which claimant is entitled as a result of said occurrence or event. If OWNER and CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Times (or Milestones) shall be determined as set out in Article 16. No Claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph.
- 12.1.2.** When CONTRACTOR is at fault and OWNER stops the Work, so that corrections in the Work can be made by CONTRACTOR, no extension in time will be allowed.
- 12.1.3.** When CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER

and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. If performance by the CONTRACTOR or OWNER is interrupted by any occurrence not occasioned by its own conduct, whether such occurrence be an act of god or the result of war, riot, civil commotion, sovereign conduct, or the conduct of a third party, then such performance will be excused for a period of time necessary to remedy its effects, provided, however, in such an event, a conference will be held within three (3) business days to establish a proposed new Progress Schedule for the Project.

12.1.4. OWNER will consider time extension requests and may grant CONTRACTOR an extension of time because of:

- .1 Changes ordered in the work which justify additional time.
- .2 Failure of materials or products being at the Project site due to delays in transportation or failures of Suppliers, which are not the result of CONTRACTOR's, Subcontractor's or Supplier's negligence. The request for an extension of time shall be supported by a citation of acts demonstrating that the delays are beyond CONTRACTOR's control, including, but not limited to, CONTRACTOR's efforts to overcome such delays documented as follows:
 - a) Copy of purchase order for delayed item(s) indicating date ordered by CONTRACTOR/ Subcontractor and date purchase order received by Supplier.
 - b) If item(s) require Shop Drawings or other submittal information in accordance with the Contract Documents, provide record of date submittal(s) forwarded to Owner's Representative, date submittal(s) returned to CONTRACTOR, and date submittal(s) forwarded to Supplier.
 - c) Copy of document(s) from Supplier, on Supplier's letterhead, indicating date(s) item(s) would be ready for shipment and/or actual shipment date(s).
 - d) Copies of all correspondence between CONTRACTOR / Subcontractor and Supplier indicating CONTRACTOR / Subcontractor's efforts to expedite item(s).
 - e) If item(s) are being purchased by a Subcontractor, provide correspondence, meeting notes, etc., that reflect CONTRACTOR's efforts with the Subcontractor to expedite delivery of the item(s).
- .3 When acts of OWNER, E/A, utility owners or other contractors employed by OWNER delay progress of work through no fault of CONTRACTOR. The CONTRACTOR will only be entitled to an extension of time for delays that affect the Critical Path of the Work and that are not caused by the CONTRACTOR.
- .4 When CONTRACTOR is delayed by strikes, lockouts, fires, losses from natural causes, or other unavoidable cause or causes beyond CONTRACTOR's control.

12.2. Calendar Day Contracts:

- 12.2.1.** Under a Calendar Day Contract, CONTRACTOR may be granted an extension of time because of unusual inclement weather, including but not limited to unusual rainfall events, which are beyond the normal rainfall recorded and expected for Austin, Texas. However, the CONTRACTOR will not be granted an extension of time for "normal rainfall", as described below.

12.2.2. "Unusual Inclement Weather" is defined as a rain event or other weather related event which occurs at the site and is of sufficient magnitude to prevent CONTRACTOR from performing units of Work critical to maintaining the Progress Schedule.

12.2.3. Baseline Rain Day Determination. "Normal rainfall" compiled by the State climatologist, based on U.S. Weather Bureau Records for Austin, Texas, is considered a part of the Calendar Day Contract, and is not a justification for an extension of time. Listed below are the number of days in each month for which no compensatory days for rainfall events ("Rain Days") in such months may be claimed:

January.....	8 days
February.....	8 days
March.....	7 days
April.....	7 days
May.....	9 days
June.....	6 days
July.....	5 days
August.....	5 days
September.....	7 days
October.....	7 days
November.....	7 days
December.....	7 days

Rain Days in addition to the baseline Rain Day determination described above will be measured with the Owner's Representative's approval at the nearest operational public weather data collection facility to the site, including but not limited to the OWNER's early warning flood gauge system.

12.2.4. CONTRACTOR may receive credit in any month for Unusual Inclement Weather, and specifically for any Rain Days in that month which exceed the number of Rain Days allocated to that month, if a Claim is made in accordance with paragraph 12.1.1 and the weather event meets the definition for "Unusual Inclement Weather", and as applicable, "Rain Day" and such claimed day is a day on which Work critical to maintaining the Progress Schedule is scheduled to be performed and is otherwise capable of being performed.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.1. **Notice of Defects:** Prompt notice of all defective Work of which OWNER or E/A has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected or accepted as provided in Article 13. CONTRACTOR must give OWNER and E/A prompt notice of any defective Work of which CONTRACTOR has actual knowledge.

13.2. **Access to Work:** OWNER, E/A, E/A's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies having jurisdiction will have access to the Work at reasonable times for observing, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access, and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

13.3. **Tests and Inspections:**

13.3.1. CONTRACTOR shall give timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing

personnel to facilitate required inspections or tests.

- 13.3.2.** OWNER shall employ and pay for services of an independent testing laboratory to perform all inspections, tests or approvals required by the Contract Documents except:
- .1 for inspections, tests or approvals covered by paragraphs 13.3.3 and 13.3.4 below;
 - .2 that costs incurred for tests or inspections conducted pursuant to paragraph 13.4.3 shall be paid as provided in paragraph 13.4.3;
 - .3 for reinspecting or retesting defective Work, including any associated costs incurred by the testing laboratory for cancelled tests or standby time; and
 - .4 as otherwise specifically provided in the Contract Documents.
- 13.3.3.** If laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish Owner's Representative the required certificates of inspection or approval.
- 13.3.4.** CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and E/A's review of submittals covering materials, equipment, and mix designs to be incorporated in the Work.
- 13.3.5.** All testing laboratories shall meet the requirements of ASTM E-329.

13.4. Uncovering Work:

- 13.4.1.** If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of Owner's Representative, or if any Work is covered contrary to the written request of Owner's Representative, it must, if requested by Owner's Representative, be uncovered and recovered at CONTRACTOR's expense.
- 13.4.2.** Uncovering Work as provided in paragraph 13.4.1 shall be at CONTRACTOR's expense unless CONTRACTOR has given Owner's Representative timely notice of CONTRACTOR's intention to cover the same and Owner's Representative has not acted within five (5) working days to such notice.
- 13.4.3.** If Owner's Representative considers it necessary or advisable that covered Work be observed, inspected or tested, CONTRACTOR shall uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Amount, and may make a Claim therefor as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Amount or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and CONTRACTOR may make a Claim therefor as provided in Articles 11 and 12.

13.5. OWNER May Stop the Work:

13.5.1. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers, suitable materials, and/or equipment; or fails to furnish or perform the Work in such a way that the Work in progress or the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

13.5.2. If CONTRACTOR fails to correct defective Work or submit a satisfactory plan to take corrective action, with procedure and time schedule, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until cause for such order has been eliminated, or take any other action permitted by this Contract. A notice to stop the Work, based on defects, shall not stop calendar or working days charged to the Project.

13.6. Correction or Removal of Defective Work: If required by OWNER, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by Owner's Representative, remove it from the site and replace it with Work that is not defective. CONTRACTOR shall correct or remove and replace defective Work, or submit a plan of action detailing how the deficiency will be corrected, within the time frame identified in the notice of defective Work. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.7. Warranty period:

13.7.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents (e.g. paragraph 14.11.2), any Work, including work performed after the Substantial Completion date, is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions:

- (i) correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not defective, and
- (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom.

If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR. The warranty period will be deemed to be renewed and recommenced in connection with the completed items of Work requiring correction.

13.7.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the warranty period for that item may start to run from an earlier date if so provided in the Contract Documents.

- 13.7.3.** If correction of defective Work will affect the function or use of the facility CONTRACTOR shall not proceed with correction of defective Work without prior coordination and approval of OWNER.
- 13.7.4.** The obligations of the CONTRACTOR to perform warranty work will survive the acceptance of the Work and any termination of the Contract.
- 13.8. Acceptance of Defective Work:** If, instead of requiring correction or removal and replacement of defective Work, OWNER decides to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents and compensating OWNER for the diminished value of the defective Work. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER after a calculation by OWNER of the diminution in value of the defective Work.
- 13.9. OWNER May Correct Defective Work:** If CONTRACTOR fails within a reasonable time after Written Notice of OWNER to correct defective Work, or to remove and replace rejected Work, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven (7) calendar days' Written Notice to CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of the Owner's Representative, significant progress has not been made during this seven (7) calendar day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, its agents and employees, OWNER's other contractors, E/A and E/A's consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1. Application for Progress Payment:

- 14.1.1.** Within 45 days from when the work was performed by the Contractor and Subcontractors, but not more often than once a month, CONTRACTOR shall submit to Owner's Representative for review an Application for Payment, in a form acceptable to OWNER, filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.
- 14.1.2.** Such applications shall not include requests for payment on account of changes in the Work which have been properly authorized by Change Directives but not yet

included in Change Orders.

- 14.1.3.** Such applications shall not include requests for payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason.
- 14.1.4.** If payment is requested on the basis of materials or equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall be accompanied by such bills of sale, data and other procedures satisfactory to OWNER substantiating OWNER's title to such materials or equipment or otherwise protecting OWNER's interest. Payment on account of such materials or equipment will not include any amount for CONTRACTOR's overhead or profit or relieve CONTRACTOR of its obligation to protect and install such materials or equipment in accordance with the requirements of the Contract and to restore damaged or defective Work. If materials or equipment are stored at another location, at the direction of the OWNER they shall be stored in a bonded and insured facility, accessible to E/A and OWNER, and shall be clearly marked as property of OWNER. Title to materials delivered to the site of the Work or a staging area will pass to OWNER upon payment by OWNER without the necessity for further documentation. Risk of loss will not pass to OWNER until acceptance.
- 14.1.5.** Where the original Contract Amount is less than \$400,000, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less ten percent (10%) of amount thereof, which ten percent (10%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. Where the original Contract Amount is \$400,000 or more, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less five percent (5%) of amount thereof, which five percent (5%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. In either case, if the Work is near completion and delay occurs due to no fault or neglect of CONTRACTOR, OWNER may pay a portion of the retained amount to CONTRACTOR. CONTRACTOR, at OWNER's option, may be relieved of the obligation to complete the Work and, thereupon, CONTRACTOR shall receive payment of the balance due under the Contract subject to the conditions stated under paragraph 15.2. A Subcontractor may submit a written request to the CONTRACTOR and Project Manager requesting release of retainage for work by the Subcontractor that has been completed and approved. The Project Manager will evaluate the request and if it is approved, the Project Manager will request the CONTRACTOR to include the request for release of an appropriate amount of retainage in the next Pay Application.
- 14.1.6.** Applications for Payment shall include the following documentation:
- .1** updated Progress Schedule;
 - .2** monthly subcontractor report;
 - .3** any other documentation required under the Supplemental General Conditions.
- 14.2. CONTRACTOR's Warranty of Title:** CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER free and clear of all Liens no later than the time of payment to CONTRACTOR.
- 14.3.** Review of Applications for Progress Payment:

- 14.3.1.** Owner's Representative will, within seven (7) calendar days after receipt of each Application for Payment, either indicate a recommendation for payment and forward the Application for processing by OWNER, or return the Application to CONTRACTOR indicating Owner's Representative's reasons for refusing to recommend payment. In the latter case, CONTRACTOR shall make the necessary corrections and resubmit the Application.
- 14.3.2.** Owner's Representative's recommendation of any payment requested in an Application for Payment will constitute a representation by Owner's Representative, based upon Owner's Representative's on-site observations of the executed Work and on Owner's Representative's review of the Application for Payment and the accompanying data and schedules, that to the best of Owner's Representative's knowledge, information and belief:
- .1 the Work has progressed to the point indicated; and
 - .2 the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for unit price Work, and to any other qualifications stated in the recommendation).
- 14.3.3.** By recommending any such payment, Owner's Representative will not thereby be deemed to have represented that:
- .1 exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work;
 - .2 examination has been made to ascertain how or for what purpose CONTRACTOR has used money previously paid on account of the Contract Amount;
 - .3 CONTRACTOR's construction means, methods, techniques, sequences or procedures have been reviewed; or
 - .4 that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.4. Decisions to Withhold Payment:

- 14.4.1.** OWNER may withhold or nullify the whole or part of any payment to such extent as may be necessary on account of:
- .1 defective Work not remedied;
 - .2 third party Claims filed or reasonable evidence indicating probable filing of such Claims;
 - .3 failure of CONTRACTOR to make payments properly to Subcontractors for labor, materials or equipment;
 - .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount;
 - .5 damage to OWNER or another contractor;
 - .6 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;
 - .7 failure of CONTRACTOR to submit a schedule of values in accordance with the Contract Documents;

- .8 failure of CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;
- .9 failure of CONTRACTOR to submit and update a construction Progress Schedule in accordance with the Contract Documents;
- .10 failure of CONTRACTOR to maintain a record of changes on drawings and documents;
- .11 failure of CONTRACTOR to maintain weekly payroll reports and, as applicable, provide copies of reports in a timely manner upon request of OWNER;
- .12 failure of CONTRACTOR to submit monthly subcontractor reports;
- .13 CONTRACTOR's neglect or unsatisfactory prosecution of the Work, including failure to clean up;
- .14 failure of CONTRACTOR to comply with the Austin City Code, Chapter 2-9-A, as amended, "Minority-Owned and Women-Owned Business Enterprise Procurement Program;" or
- .15 failure of CONTRACTOR to comply with any provision of the Contract Documents.

14.4.2. When the above reasons for withholding payment are removed, CONTRACTOR shall resubmit a statement for the value of Work performed. Payment will be made within thirty (30) calendar days of receipt of approved Application for Payment.

14.4.3. Subcontractors may request Partial Payment when the OWNER withholds payment of an invoice to the CONTRACTOR for any reason listed in Section 14.4.1. If payment is withheld by the OWNER, the CONTRACTOR shall notify all affected Subcontractors within two (2) working days of notice that payment is being withheld. Upon notification, Subcontractors may submit a formal written request for Partial Payment to the CONTRACTOR and OWNER. If directed by the OWNER, the CONTRACTOR shall within three (3) working days resubmit to the OWNER an invoice for the same period that includes only the work performed by the requesting Subcontractors during this period. The OWNER will review this resubmitted invoice in accordance with Section 14.3.1. Upon receipt of payment for the resubmitted invoice, CONTRACTOR shall pay the subcontractor within ten (10) Calendar Days in accordance with Section 6.4.7.

14.5. Delayed Payments: Should OWNER fail to make payment to CONTRACTOR of sum named in any Application for Payment within thirty (30) calendar days after the day on which OWNER received the mutually acceptable Application for Payment, then OWNER will pay to CONTRACTOR, in addition to sum shown as due by such Application for Payment, interest thereon at the rate specified in Government Code, Section 2251.025(b) from date due until fully paid, which shall fully liquidate any injury to CONTRACTOR growing out of such delay in payment.

14.6. Arrears: No money shall be paid by OWNER upon any claim, debt, demand or account whatsoever, to any person, firm or corporation who is in arrears to City for taxes; and City shall be entitled to counterclaim and automatically offset against any such debt, claim, demand or account in the amount of taxes so in arrears and no assignment or transfer of such debt, claim, demand or account after said taxes are due, shall affect the right of OWNER to so offset said taxes, and associated penalties and interest if applicable, against the same.

14.7. Substantial Completion:

14.7.1. When the CONTRACTOR considers that the Work, or a portion thereof which the

OWNER agrees to accept separately, is substantially complete, the CONTRACTOR shall notify Owner's Representative and request a determination as to whether the Work or designated portion thereof is substantially complete. If Owner's Representative does not consider the Work substantially complete, Owner's Representative will notify CONTRACTOR giving reasons therefor. After performing any required Work, CONTRACTOR shall then submit another request for Owner's Representative to determine Substantial Completion. If Owner's Representative considers the Work substantially complete, Owner's Representative will prepare and deliver a certificate of Substantial Completion which shall establish the date of Substantial Completion, shall include a punch list of items to be completed or corrected before final payment, shall establish the time within which CONTRACTOR shall finish the punch list, and shall establish responsibilities of the OWNER and CONTRACTOR for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of CONTRACTOR to complete all Work in accordance with the Contract Documents. If a Certificate of Occupancy is required by public authorities having jurisdiction over the Work, said certificate shall be issued before the Work or any portion thereof is considered substantially complete. The certificate of Substantial Completion shall be signed by OWNER and CONTRACTOR to evidence acceptance of the responsibilities assigned to them in such certificate.

14.7.2. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER will allow CONTRACTOR reasonable access to complete or correct items on the punch list and complete warranty work.

14.8. Partial Utilization: Use by OWNER, at OWNER's option, of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work in accordance with the following:

14.8.1. OWNER at any time may request CONTRACTOR to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR shall certify to Owner's Representative that such part of the Work is substantially complete and request Owner's Representative to issue a certificate of substantial Completion for that part of the Work. CONTRACTOR at any time may notify Owner's Representative that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Owner's Representative to issue a certificate of Substantial Completion for that part of the Work. The provisions of paragraphs 14.7.1 and 14.7.2 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.8.2. Such partial utilization is authorized by public authorities having jurisdiction over the Work.

14.9. Final Inspection: Upon Written Notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Owner's Representative will make a final inspection with CONTRACTOR and provide Written Notice of all particulars in which this inspection

reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.10. Final Application for Payment: CONTRACTOR may make application for final payment following the procedure for progress payments after CONTRACTOR has completed all such corrections to the satisfaction of Owner's Representative and delivered the following documents:

- 14.10.1.** Affidavit by CONTRACTOR certifying the payment of all debts and claims;
- 14.10.2.** Three (3) complete operating and maintenance manuals, each containing maintenance and operating instructions, schedules, guarantees, and other documentation required by the Contract Documents;
- 14.10.3.** Record documents (as provided in paragraph 6.10);
- 14.10.4.** Consent of surety, if any, to final payment. If surety is not provided, complete and legally effective releases or waivers (satisfactory to OWNER) of all claims arising out of or filed in connection with the Work;
- 14.10.5.** Certificate evidencing that insurance required by the Supplemental General Conditions will remain in force after final payment and through the warranty period;
- 14.10.6.** Non-Use of Asbestos Affidavit (After Construction);
- 14.10.7.** Subcontractor report and all other documentation necessary for evaluation of CONTRACTOR's fulfillment of the Contract MBE/WBE or DBE goals;
- 14.10.8.** Documentation of notice to claimants, to the extent applicable and subject to subparagraph 14.11.4;
- 14.10.9.** Proof of performance Bond extension through warranty period, if a performance Bond was required; and
- 14.10.10.** Any other documentation called for in the Contract Documents.

14.11. Final Payment and Acceptance:

- 14.11.1.** If, on the basis of observation of the Work during construction, final inspection, and review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Owner's Representative is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled and there are no outstanding claims, Owner's Representative will recommend the final Application for Payment and thereby notify the OWNER, who will pay to CONTRACTOR the balance due CONTRACTOR under the terms of the Contract. If the sole remaining unfinished item to complete the Work is the reestablishment of vegetation, CONTRACTOR may execute a revegetation letter with fiscal posted (letter of credit) to ensure completion of this item. This Work must be accomplished within one hundred twenty (120) Calendar Days of the date of Final Completion of the Work. When the permanent erosion control has been established, OWNER will initiate an inspection for final acceptance of the erosion controls. If the revegetation is not completed within the one hundred twenty (120) Calendar Days, OWNER, at its option, may complete the Work using the posted fiscal.
- 14.11.2.** If the Contract measures Contract Time to Final Completion, rather than Substantial Completion, Owner's Representative will issue a letter of final acceptance to CONTRACTOR which establishes the Final Completion date and initiates the one-year warranty period. If the sole remaining unfinished item to

complete the Work is the reestablishment of vegetation and CONTRACTOR has executed a revegetation letter with fiscal posted (letter of credit) to ensure completion of this item, the Owner's Representative will issue a letter of conditional acceptance to CONTRACTOR which established the Final Completion date and initiates the one-year warranty period.

14.11.3. Final payment is considered to have taken place when CONTRACTOR or any of its representatives negotiates OWNER's final payment check, whether labeled final or not, for cash or deposits check in any financial institution for its monetary return.

14.11.4. The OWNER will withhold funds sufficient to cover the amount of any unresolved contract claims from final payment for six months under the following limited conditions:

- .1 CONTRACTOR must provide written notice to the claimant (via certified mail or hand delivery) that (i) OWNER will hold funds in the amount of the disputed claim for six (6) months from the date of the receipt of the notice and (ii) CONTRACTOR and the claimant have certain alternative dispute resolution rights; and
- .2 CONTRACTOR must provide OWNER with a copy of the receipted notice.

Provided the claimant has received notice under this section, OWNER will release the withheld funds, if the CONTRACTOR provides a bond in substantial compliance with the provisions of Section 52.231 of the Texas Property Code; when the OWNER receives a settlement or release of the claim with accompanying instructions regarding payment; upon resolution of the claim in litigation, if suit is filed within such six (6) month period and the OWNER receives written notice of such filing; or when such six (6) month period has passed, if no such bond, settlement, release, or notice of filing of suit have been received. The above provisions notwithstanding, if efforts to timely resolve a disputed claim are not being made to OWNER'S reasonable satisfaction, OWNER may, in its complete discretion, file an interpleader action and deposit the withheld funds in the registry of a court of competent jurisdiction. In addition, CONTRACTOR must include a provision in each of its subcontracts that the prevailing party in any litigation arising thereunder will be entitled to recover its costs of court and reasonable attorney's fees.

14.12. Waiver of Claims: The making and acceptance of final payment will constitute:

14.12.1. a waiver of claims by OWNER against CONTRACTOR, except claims arising from unsettled claims, from defective Work appearing after final inspection, from failure to comply with the Contract Documents or the terms of any warranty specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.12.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.1. OWNER May Suspend Work Without Cause: At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety (90) calendar days by Written Notice to CONTRACTOR which will fix the date on which the Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Amount or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR

makes an approved Claim therefor as provided in Articles 11 and 12.

15.2. OWNER May Terminate Without Cause: Upon seven (7) calendar days' Written Notice to CONTRACTOR, OWNER may, without cause and without prejudice to any right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items):

15.2.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;

15.2.2. for reasonable demobilization costs; and

15.2.3. for anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity.

15.3. OWNER May Terminate With Cause:

15.3.1. Upon the occurrence of any one or more of the following events:

- .1 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents;
- .2 if CONTRACTOR disregards laws or regulations of any public body having jurisdiction;
- .3 if CONTRACTOR disregards the authority of Owner's Representative;
- .4 if CONTRACTOR makes fraudulent statements;
- .5 if CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;
- .6 if CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or
- .7 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any) seven (7) calendar days Written Notice terminate the services of CONTRACTOR. OWNER, at its option, may proceed with negotiation with surety for completion of the Work. Alternatively, OWNER may under these circumstances exclude CONTRACTOR from the site and take possession of the Work (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Amount exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses and damage exceed such unpaid balance, CONTRACTOR or surety shall pay the difference to OWNER. In the event that a termination for cause is found to be wrongful, the termination shall be converted to a termination without cause as set forth in Section 15.2 and CONTRACTOR'S remedy for wrongful termination is limited to the recovery of the payments permitted for termination without cause as set forth in Section 15.2.

15.3.2. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR and surety then existing or which may thereafter accrue. Any

retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability. In the event OWNER terminates Contract with cause, OWNER may reject any and all Bids submitted by CONTRACTOR for up to three (3) years after the date of such termination. These sanctions will be administered in accordance with the City of Austin Financial Services Probation, Suspension, and Debarment Procedures for Vendors, which include notice and an opportunity for a hearing.

- 15.4. CONTRACTOR May Stop Work or Terminate:** If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) calendar days by OWNER or under an order of court or other public authority, or (except during disputes) Owner's Representative fails to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER fails for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, then CONTRACTOR may, upon seven (7) calendar days' Written Notice to OWNER, and provided OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.2. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) Owner's Representative has failed to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER has failed for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, CONTRACTOR may upon seven (7) calendar days' Written Notice to OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.4 are not intended to preclude CONTRACTOR from making a Claim under Articles 11 and 12 for an increase in Contract Amount or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.
- 15.5. Discretionary Notice to Cure:** In its complete discretion, OWNER may, but is not required to, provide a Notice to Cure to CONTRACTOR and its surety to cure an event of default described above and/or an anticipatory breach of contract and, if required by OWNER, to attend a meeting with OWNER, regarding the Notice to Cure, the event of default, and/or the anticipatory breach of contract. The Notice to Cure will set forth the time limit in which the cure is to be completed or commenced and diligently prosecuted. Upon receipt of any Notice to Cure, CONTRACTOR shall prepare a report describing its program and measures to affect the cure of the event of default and/or anticipatory breach of contract within the time required by the Notice to Cure. The CONTRACTOR'S report must be delivered to OWNER at least three (3) days prior to any requested meeting with the OWNER and surety.
- 15.6. Bankruptcy:** If CONTRACTOR declares bankruptcy or is adjudged bankrupt or makes an assignment for the benefit of creditors or if a receiver is appointed for the benefit of creditors or if a receiver is appointed by reason of CONTRACTOR'S insolvency, CONTRACTOR may be unable to perform this Contract in accordance with the Contract requirements. In such an event, OWNER may demand CONTRACTOR or its successor in interest provide OWNER with adequate assurance of CONTRACTOR'S future performance in accordance with the terms and conditions of the Contract. If CONTRACTOR fails to provide adequate assurance of future performance to OWNER'S reasonable satisfaction within ten (10) days of such a request, OWNER may terminate the CONTRACTOR'S services for cause or without cause, as set forth above. If CONTRACTOR fails to provide timely adequate assurance of its performance and actual performance, OWNER may prosecute the Work with its own forces or with other contractors on a time and material or other appropriate basis and the cost of which will be charged against the Contract balance.

- 15.7. Duty to Mitigate:** In the event of any termination or suspension under this Contract, the CONTRACTOR agrees to and shall take all reasonable actions to mitigate its damages and any and all claims which may be asserted against the OWNER.
- 15.8. Responsibility during Demobilization:** While demobilizing, the CONTRACTOR will take all necessary and reasonable actions to preserve and protect the Work, the site and other property of the OWNER or others at the site.

ARTICLE 16 - DISPUTE RESOLUTION

16.1. Filing of Claims:

- 16.1.1.** Claims arising from the circumstances identified in paragraphs 3.2, 4.1, 4.2.2, 4.2.4, 6.4.2, 6.11.5.2, 6.17, 7.5, 8.6, 9.5, 10.4.2, 13.4.3, 13.8, 13.9, 15.1, 15.2, 15.3, or 15.4, or other occurrences or events, shall be made by Written Notice delivered by the party making the Claim to the other party within thirty (30) calendar days after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered in writing within thirty (30) calendar days after Written Notice of Claim is delivered by claimant and shall represent that the adjustment claimed covers all known amounts and/or extensions of time to which claimant is entitled.
- 16.1.2.** Within thirty (30) calendar days of receipt of notice of the amount of the Claim with supporting data, Owner's Representative and CONTRACTOR shall meet to discuss the Claim, after which an offer of settlement or notification of no settlement offer will be made to claimant. If claimant is not satisfied with the proposal presented, claimant shall have thirty (30) calendar days in which to: (i) submit additional supporting data requested by the other party; (ii) modify the initial Claim; or (iii) request Alternative Dispute Resolution.

16.2. Alternative Dispute Resolution:

- 16.2.1.** If a dispute exists concerning a Claim, the parties agree to use the following procedure prior to pursuing any other available remedies. OWNER reserves the right to include the E/A as a party.
- 16.2.2.** Negotiating with Previously Uninvolved Personnel: Either party may make a written request for a meeting to be held between representatives of each party within fourteen (14) Calendar Days of the request or such later period that the parties may agree to. Each party shall endeavor to include, at a minimum, one (1) previously uninvolved senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. If a previously uninvolved senior level decision maker is unavailable due to the size of the CONTRACTOR'S organization or any other reason, the CONTRACTOR shall nonetheless provide an appropriate senior level decision maker for the meeting. The purpose of this and any subsequent meetings will be good faith negotiations of the matters constituting the dispute. Negotiations shall be concluded within thirty (30) Calendar Days of the first meeting, unless mutually agreed otherwise. This step may be waived by a written agreement signed by both parties, in which event the parties may proceed directly to mediation as described below.
- 16.2.3. Mediation:**
- .1** If the procedure described in 16.2.2 proves unsuccessful or is waived pursuant to its terms, the parties shall initiate the mediation process. OWNER

and CONTRACTOR agree to select within thirty (30) calendar days a mediator trained in mediation skills, to assist with resolution of the dispute. OWNER and CONTRACTOR agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in this agreement prevents the parties from relying on the skills of a person who also is trained in the subject matter of the dispute and/or a contract interpretation expert. Should the parties fail to agree on a mediator within thirty (30) calendar days of initiation of the mediation process, the parties agree to ask the Travis County Dispute Resolution Center to select a qualified individual, which selection shall be binding on the parties.

- .2 Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. The parties hereby agree that mediation, at a minimum, shall provide for (i) conducting an on-site investigation, if appropriate, by the mediator for fact gathering purposes, (ii) a meeting of all parties for the exchange of points of view and (iii) separate meetings between the mediator and each party to the dispute for the formulation of resolution alternatives. The parties agree to participate in mediation in good faith for up to thirty (30) calendar days from the date of the first mediation session, unless mutually agreed otherwise. Should the parties fail to reach a resolution of the dispute through mediation, then each party is released to pursue other remedies available to them.

16.3. Resolution of Disputes between Contractor and Subcontractor or Supplier: If a dispute exists concerning a claim between a CONTRACTOR and a Subcontractor or Supplier, the CONTRACTOR agrees to participate with such Subcontractor and/or Supplier in a process substantially paralleling the steps set out in paragraphs 16.1 and 16.2 above, including the delivery of written notices, submission of supporting data, negotiation with previously uninvolved personnel, and, if such alternative dispute resolution process is unsuccessful, mediation between the parties to the claim. If the CONTRACTOR and Subcontractor or Supplier agreement provides an alternative dispute resolution process, which provides substantially equivalent rights to those set forth herein, it may be followed, unless the CONTRACTOR and affected Subcontractor or Supplier agree to follow the process outlined above. The OWNER is not a party to the alternative dispute resolution process between the CONTRACTOR and Subcontractor or Supplier and will not pay any costs incurred in the process. Each party will be responsible for its own expenses incurred in the process, which will include an equal share of the mediation expenses, unless otherwise determined by the mediator. NOTICE: THE PROCESS SET FORTH HEREIN IS NOT A SUBSTITUTE FOR THE STATUTORY PAYMENT BOND CLAIM PROCESS.

16.4. Claim Calculation:

16.4.1. Delay Claims: The intent of paying for delay damages is to reimburse the CONTRACTOR for actual expense arising out of a compensable delay. No profit or force account markups, other than labor burden, will be allowed for delay claims by the CONTRACTOR seeking reimbursement for expenses arising out of an alleged event of delay. No consequential damages will be allowed to the CONTRACTOR in connection with any claimed delays. If the CONTRACTOR requests compensation for delay damages and the delay is determined to be compensable, then standby equipment costs and project overhead compensation will be based on the duration of the compensable delay and the following:

- .1 Standby equipment costs will not be allowed during periods when the

equipment would have otherwise been idle. Standby equipment time will not exceed more than eight (8) hours per twenty-four (24) hour day, forty (40) hours per week, and one hundred seventy-six (176) hours per month. Standby equipment costs will be paid at 50 percent (50%) of the applicable Rental Rate Blue Book rates and calculated by dividing the monthly rate by one hundred seventy-six (176), multiplying the result by the number of standby hours and multiplying that number by the regional adjustment factor and the rate adjustment factor contained in the Blue Book. Operating costs will not be allowed.

- .2 Project overhead will be determined from actual costs that the CONTRACTOR will be required to document. Project overhead is defined as the administrative and supervisory expenses incurred at the work site and will not include home office overhead.

16.4.2. General: Except as limited with respect to delay claims, as set forth above, the criteria set forth in Section 11.4.1 may be used as a basis to calculate an adjustment in the Contract Amount in the resolution of a claim, provided that there will be no compensation for home office overhead.

16.5. MBE/WBE Program Progressive Sanctions: CONTRACTOR is subject to progressive sanctions for failure of CONTRACTOR to comply with Austin City Code, Chapter 2-9A, as amended: “Minority-owned and Women-owned Business Enterprise Procurement Program.” Available sanctions for Program violations are set forth in Program rules adopted by Austin Small and Minority Business Resources Department (ASMBR), as amended, and may include the following progressive sanctions for Program violations within a rolling 24-month period: a period of probation for up to six (6) months for the first violation (ii) a period of suspension from bidding for up to 24 months for the second violation, and (iii) a period of debarment for up to five (5) years for the third violation. If the CONTRACTOR engages in more than one of the violations listed below at any given time, OWNER has the discretion to determine whether such actions should be counted as multiple violations of the MBE/WBE Ordinance. Program violations include:

- .1 providing false or misleading information to the OWNER in connection with the submission of a Bid, responses to request for qualifications or Proposals, Good Faith Efforts documentation, post award compliance or other Program operations;
- .2 substituting M/WBE Subcontractors without first receiving approval for such substitutions;
- .3 failure to comply with the approved Compliance Plan without an approved request for a change, an approved Change Order or other approved change to the Contract;
- .4 violation of any other provision of the “Minority-owned and Women-owned Business Enterprise Procurement Program”;
- .5 providing false or misleading information to the OWNER in connection with an application for or challenge to certification, recertification or decertification as a MBE/WBE; and
- .6 bid shopping.

The Progressive Sanctions will be administered in accordance with the City of Austin Financial Services Probation, Suspension, and Debarment Procedures for Vendors, which includes notice and an opportunity for a hearing.

ARTICLE 17 – MISCELLANEOUS

17.1. Venue: In the event of any suit at law or in equity involving the Contract, venue shall be exclusively in Travis County, Texas and the laws of the State of Texas

shall apply to the interpretation and enforcement of the Contract.

- 17.2. Extent of Agreement:** This Contract represents the entire and integrated agreement between the OWNER and CONTRACTOR with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral.
- 17.3. Cumulative Remedies:** The rights and remedies available to the parties are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantees or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. Specifically, the OWNER is not required to only assess liquidated damages, and OWNER may elect to pursue its actual damages resulting from the failure of the CONTRACTOR to complete the Work in accordance with the requirements of the Contract Documents.
- 17.4. Severability:** If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding shall only effect such word, phrase, clause, sentence or provision, and such finding shall not affect the remaining portions of this Contract; this being the intent of the parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.
- 17.5. Independent Contractor:** The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. CONTRACTOR is an independent contractor and CONTRACTOR's services shall be those of an independent contractor. CONTRACTOR agrees and understands that the Contract does not grant any rights or privileges established for employees of OWNER.
- 17.6. Prohibition of Gratuities:** OWNER may, by Written Notice to CONTRACTOR, terminate the Contract without liability if it is determined by OWNER that gratuities were offered or given by CONTRACTOR or any agent or representative of CONTRACTOR to any officer or employee of OWNER with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such Contract. In the event the Contract is terminated by OWNER pursuant to this provision, OWNER shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by CONTRACTOR in providing such gratuities.
- 17.7. Prohibition Against Personal Interest in Contracts:** No officer, employee, independent consultant, or elected official of OWNER who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of CONTRACTOR shall render the Contract voidable by OWNER.
- 17.8. OWNER'S Right to Audit:**
- 17.8.1.** Records means all records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier of CONTRACTOR, whether paper, electronic, or other media, which are in any way related to performance of or compliance with this Contract, including, without limitation:
- .1 accounting records;
 - .2 written policies and procedures;
 - .3 subcontract files (including proposals of successful and unsuccessful Bidders, Bid recaps, etc.);

- .4 original estimates and estimating work sheets;
 - .5 correspondence;
 - .6 Change Order files (including documentation covering negotiated settlements);
 - .7 back charge logs and supporting documentation;
 - .8 general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends;
 - .9 lump sum agreements between CONTRACTOR and any Subcontractor or Supplier;
 - .10 records necessary to evaluate: Contract compliance, Change Order pricing, and any Claim submitted by CONTRACTOR or any of its payees; and
 - .11 any other CONTRACTOR record that may substantiate any charge related to this Contract.
- 17.8.2.** CONTRACTOR shall allow OWNER'S agent or its authorized representative to inspect, audit, and/or reproduce, or all three, all Records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier, upon OWNER'S written request. Further, CONTRACTOR shall allow OWNER'S agent or authorized representative to interview any of CONTRACTOR'S employees, all Subcontractors and all Suppliers, and all their respective employees.
- 17.8.3.** CONTRACTOR shall retain all its Records, and require all its Subcontractors and Suppliers to retain their respective Records, during this Contract and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to the attention of CONTRACTOR are resolved, or as otherwise required by law, whichever is longer. OWNER'S right to inspect, audit, or reproduce Records, or interview employees of CONTRACTOR or its respective Subcontractors or Suppliers exists during this Contract, and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to CONTRACTOR'S attention are resolved, or as otherwise required by law, whichever is longer, and at no cost to OWNER, either from CONTRACTOR or any of its Subcontractors or Suppliers that may furnish Records or make employees available for interviewing.
- 17.8.4.** CONTRACTOR must provide sufficient and accessible facilities during its normal business hours for OWNER to inspect, audit, or reproduce Records, or all three, and to interview any person about the Records.
- 17.8.5.** CONTRACTOR shall insert these requirements in each written contract between CONTRACTOR and any Subcontractor or Supplier and require each Subcontractor and Supplier to comply with these provisions.
- 17.9. Survival:** The terms and conditions of this Contract, which contemplate a period of time beyond completion or termination will survive such completion or termination and not be merged therein or otherwise terminated.
- 17.10. No Waiver:** The waiver of any provision of this Contract will not be deemed to be a waiver of any other provision of this Contract. No waiver of any provision of this Contract will be deemed to constitute a continuing waiver unless expressly provided in writing, nor will a waiver of any default be deemed a waiver of any subsequent defaults of the same type. The failure at any time to enforce this Contract, whether the default is known or not, shall not constitute a waiver or estoppel of the right to do so.
- 17.11. Conditions Precedent to Right to Sue:** Notwithstanding anything herein to the contrary,

the CONTRACTOR will have at least 90 days to give notice of a claim for damages as a condition precedent to the right to sue on the Contract, subject to the contractual claim and alternative dispute resolution processes set forth herein.

17.12. Waiver of Trial by Jury: OWNER and CONTRACTOR agree that they have knowingly waived the right to trial by jury and have instead agreed that, in the event of any litigation arising out of or connected to this Contract, to proceed with a trial before the court, unless both parties subsequently agree otherwise in writing.

17.13. Contractor Evaluation: The Owner will review and evaluate the Contractor's Work and performance on the Project and provide the Contractor with a written Contractor Evaluation Report in accordance with City of Austin Administrative Rule R161-13.37. Rule R161-13.37 provides an appeal process.

[Contractor Performance Evaluation Program | AustinTexas.gov](#)

End

The Supplemental General Conditions contained herein amend or supplement the General Conditions, Section 00700.

ARTICLE 1 – DEFINITIONS

Add to the following definition:

1.20 Engineer/Architect (E/A): The OWNER’s design professional for this contract is:

Name: Lindsay C. Webb, PE.
Texas, PE No. 110398
STV Incorporated
Address: 13809 Research Blvd., Suite 300
Austin, Texas 78750

1.51 Allowance - Allowance is defined as "a not-to-be-exceeded amount", either individually or in the aggregate, which is established between the Owner and the Contractor as part of its Bid Proposal when the precise scope of a particular line item(s) has not been defined to a level which is adequate for the Contractor to provide a definitive line item pricing for that particular scope of Work. The use of any Allowances by the Contractor will be subject to the Owner’s sole approval and it is the Owner’s intent to minimize the use of Allowances to the fullest extent possible. For any Allowances which the Owner allows the Contractor to use, the following rules shall apply: (i) Allowances shall cover the cost to the Contractor of the Cost of Work; (ii) Contractor’s overhead and profit associated with the stated Allowance shall be included in the Allowance; and (iii) upon completion of the portion of the Work subject to an Allowance, the Contract Amount for that portion of the Work will be adjusted based upon the approved actual cost of the Work, which will not exceed the approved aggregate amount of the Allowances.

1.52 Mobilization Prompt Payment Program - The Owner’s Mobilization Prompt Payment Program, will allow bimonthly payments during "critical mobilization stages" as specified in the Contract Documents by the Prime Contractor. The Mobilization Prompt Payment Program will only apply to projects with a construction cost greater than \$2,000,000.

ARTICLE 2 - PRELIMINARY MATTERS

Add the following modification to the end of 2.4.2.1:

.1 The Baseline Schedule and schedule submittals for Projects in the Mobilization Prompt Payment Program must identify periods of 'critical mobilization.' The periods of critical mobilization will include the first two months of the Contract Time and additional periods identified by the Contractor and approved by Owner when peak Subcontractor mobilization will occur.

2.4 Before Starting Construction:

Delete 2.4.2.6 and replace with the following (changes to the original text are identified by underlining):

Bidding Requirements, Contract Forms and Conditions of the Contract

.6 A preliminary schedule of values for all of the Work, subdivided into component parts in sufficient detail to serve as the basis for progress payments during construction. At a minimum, the schedule of values must be broken out by trade and by the Equipment list as shown in the plans. Prices will be deemed to include an appropriate amount of overhead and profit applicable to each item of Work;

ARTICLE 5 - BONDS AND INSURANCE

5.3 Other Bond and Insurance Requirements:

5.3.1 CONTRACTOR Provided Insurance

5.3.1.1 General Requirements.

.1 CONTRACTOR shall carry insurance in the types and amounts indicated below for the duration of the Contract, which shall include items owned by OWNER in the care, custody and control of CONTRACTOR prior to and during construction and warranty period.

.2 CONTRACTOR must complete and forward the Certificate of Insurance, Section 00650, to OWNER before the Contract is executed as verification of coverage required below. CONTRACTOR shall not commence Work until the required insurance is obtained and until such insurance has been reviewed by OWNER. Approval of insurance by OWNER shall not relieve or decrease the liability of CONTRACTOR hereunder and shall not be construed to be a limitation of liability on the part of CONTRACTOR. CONTRACTOR must also complete and forward the Certificate of Insurance, Section 00650, to OWNER whenever a previously identified policy period has expired as verification of continuing coverage.

.3 CONTRACTOR's insurance coverage is to be written by companies authorized to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of B+VII or better, except for hazardous material insurance which shall be written by companies with A.M. Best ratings of A- or better.

.4 All endorsements naming the OWNER as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall indicate: City of Austin, Capital Contracting Office, P.O. Box 1088, Austin, Texas 78767.

.5 The "other" insurance clause shall not apply to the OWNER where the OWNER is an additional insured shown on any policy. It is intended that policies required in the Contract, covering both OWNER and CONTRACTOR, shall be considered primary coverage as applicable.

.6 If insurance policies are not written for amounts specified below, CONTRACTOR shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.

.7 OWNER shall be entitled, upon request and without expense, to receive certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.

.8 OWNER reserves the right to review the insurance requirements set forth during the effective period of this Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by OWNER based

Bidding Requirements, Contract Forms and Conditions of the Contract

upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as CONTRACTOR.

.9 CONTRACTOR shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract.

.10 CONTRACTOR shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. All deductibles or self-insured retentions shall be disclosed on the Certificate of Insurance.

.11 CONTRACTOR shall provide OWNER thirty (30) days written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicated within the Contract.

.12 If OWNER owned property is being transported or stored off-site by CONTRACTOR, then the appropriate property policy will be endorsed for transit and storage in an amount sufficient to protect OWNER's property.

.13 The insurance coverages required under this contract are required minimums and are not intended to limit the responsibility or liability of CONTRACTOR.

5.3.1.2 Business Automobile Liability Insurance. Provide coverage for all owned, non-owned and hired vehicles. The policy shall contain the following endorsements in favor of OWNER:

- a) Waiver of Subrogation endorsement CA 0444;
- b) 30 day Notice of Cancellation endorsement CA 0244; and
- c) Additional Insured endorsement CA 2048.

Provide coverage in the following types and amounts:

.1 A minimum combined single limit of \$500,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are \$250,000 bodily injury per person, \$500,000 bodily injury per occurrence and at least \$100,000 property damage liability each accident.

5.3.1.3 Workers' Compensation And Employers' Liability Insurance. Coverage shall be consistent with statutory benefits outlined in the Texas Workers' Compensation Act (Section 401). CONTRACTOR shall assure compliance with this Statute by submitting two (2) copies of a standard certificate of coverage (e.g. ACCORD form) to Owner's Representative for every person providing services on the Project as acceptable proof of coverage. The Certificate of Insurance, Section 00650, must be presented as evidence of coverage for CONTRACTOR. CONTRACTOR's policy shall apply to the State of Texas and include these endorsements in favor of OWNER:

- a) Waiver of Subrogation, form WC 420304; and
- b) 30 day Notice of Cancellation, form WC 420601.

The minimum policy limits for Employers' Liability Insurance coverage shall be as follows:

.1 \$1,000,000 bodily injury per accident, \$1,000,000 bodily injury by disease policy limit and \$1,000,000 bodily injury by disease each employee.

Bidding Requirements, Contract Forms and Conditions of the Contract

5.3.1.4 Commercial General Liability Insurance. The Policy shall contain the following provisions:

- a) Contractual liability coverage for liability assumed under the Contract and all contracts relative to this Project.
- b) Completed Operations/Products Liability for the duration of the warranty period.
- c) Explosion, Collapse and Underground (X, C & U) coverage.
- d) Independent Contractors coverage (Contractors/ Subcontractors work).
- e) Aggregate limits of insurance per project, endorsement CG 2503.
- f) OWNER listed as an additional insured, endorsements CG 2010 and CG 2037 or equivalent.
- g) 30 day notice of cancellation in favor of OWNER, endorsement CG 0205.
- h) Waiver of Transfer of Recovery Against Others in favor of OWNER, endorsement CG 2404.

Provide coverages A&B with minimum limits as follows:

- .1** A combined bodily injury and property damage limit of \$500,000 per occurrence.

5.3.1.5 Builders' Risk Insurance. CONTRACTOR shall maintain Builders' Risk Insurance or Installation Insurance on an all risk physical loss form in the Contract Amount. Coverage shall continue until the Work is accepted by OWNER. OWNER shall be a loss payee on the policy. If off-site storage is permitted, coverage shall include transit and storage in an amount sufficient to protect property being transported or stored.

5.3.1.6 Hazardous Materials Insurance.

For Work which involves lead and asbestos or any hazardous materials or pollution defined as asbestos, CONTRACTOR or Subcontractor responsible for the Work shall comply with the following insurance requirements in addition to those specified above:

- .1** Provide a lead and asbestos abatement endorsement to the Commercial General Liability policy with minimum bodily injury and property damage limits of \$1,000,000 per occurrence for coverages A&B and products/completed operations coverage with a separate aggregate of \$1,000,000. This policy shall not exclude lead and asbestos or any hazardous materials or pollution defined as asbestos, and shall provide "occurrence" coverage without a sunset clause. The policy shall provide 30 day Notice of Cancellation and Waiver of Subrogation endorsements in favor of OWNER.

- .2** CONTRACTOR or Subcontractor responsible for transporting asbestos or any hazardous materials defined as asbestos shall provide pollution coverage. Federal law requires interstate or intrastate transporters of asbestos to provide an MCS 90 endorsement with a \$5,000,000 limit when transporting asbestos in bulk in conveyances of gross vehicle weight rating of 10,000 pounds or more. Interstate transporters of asbestos in non-bulk in conveyances of gross vehicle weight rating of 10,000 pounds or more must provide an MCS 90 endorsement with a \$1,000,000 limit. The terms "conveyance" and "bulk" are defined by Title 49 CFR 171.8. All other transporters of asbestos shall provide either an MCS 90 endorsement with minimum limits of \$1,000,000 or an endorsement to their Commercial General Liability Insurance policy which provides coverage for bodily injury and property damage arising out of the transportation of asbestos. The endorsement shall, at a minimum, provide a \$1,000,000 limit of liability and cover events caused by the hazardous properties of airborne asbestos arising from fire, wind, hail, lightning, overturn of conveyance, collision with other vehicles or objects, and loading and unloading of conveyances.

Bidding Requirements, Contract Forms and Conditions of the Contract

.3 CONTRACTOR shall submit complete copies of the policy providing pollution liability coverage to OWNER.

5.3.1.7 Professional Liability Insurance. For Work which requires professional engineering or professional survey services to meet the requirements of the Contract, including but not limited to excavation safety systems, traffic control plans, and construction surveying, the CONTRACTOR or Subcontractors, responsible for performing the professional services shall provide Professional Liability Insurance with a minimum limit of \$500,000 per claim and in the aggregate to pay on behalf of the assured all sums which the assured shall become legally obligated to pay as damages by reason of any negligent act, error, or omission committed with respect to all professional services provided in due course of the Work of this Contract. CONTRACTOR's policy shall include the following endorsement in favor of the OWNER:

- a) 30 day Notice of Cancellation endorsement CA 0244

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.6 Permits, Fees: *Add the following:*

OWNER will obtain and pay for the following permits, licenses and/or fees:

6.6.1 General Permit.

6.6.2 Building Permit(s). OWNER's responsibility for obtaining and paying for the Building Permit(s) shall be limited to the following where applicable: the required Electrical Service (Aid of Construction) Fee, Water and Wastewater Tap Fees, Water and Wastewater Capital Recovery Fees, and Septic Permit Fee. The OWNER's responsibility for obtaining and paying for the Building Permit(s) excludes securing and paying for the following where applicable: Driveway Permit (Concrete) Fee, Electrical Permit, Mechanical Permit, Plumbing Permit, Water Engineering Inspection Fee, Temporary Use of Right-of Way Permit, the gas company's Gas Yard Line Contribution Fee, and any other permits/fees not listed above.

6.7 Laws and Regulations: *Add the following:*

6.7.4 This Work is subject to the Texas Pollution Discharge Elimination System (TPDES) permitting requirements for the installation and maintenance of temporary and permanent erosion and sediment controls and storm water pollution prevention measures throughout the construction period.

OWNER has prepared a Storm Water Pollution Prevention Plan (SWPPP). Reference Section 01096 for this SWPPP.

CONTRACTOR's responsibilities are as follows:

.1 Obtain a signed certification statement from all Subcontractors responsible for implementing the erosion / sedimentation controls and other best management practices that are part of the SWPPP. This statement shall indicate that the Subcontractor understands the permit requirements. The certified statement forms shall be attached to and become part of the SWPPP.

Bidding Requirements, Contract Forms and Conditions of the Contract

.2 Fill out the TCEQ's "Construction Site Notice" form, which is Attachment 2 to the TPDES General Permit TXR150000 (form available from OWNER or on the Internet at <http://www.tceq.state.tx.us/assets/public/permitting/waterquality/attachments/stormwater/txr152d2.pdf> and post it near the main entrance of the Work, or at multiple postings if the Work is linear. Mail a copy of the completed Construction Site Notice form to the local Municipal Separate Storm Sewer Systems (MS4) representative:

TPDES Program Coordinator
City of Austin – WPD – ERM
P.O. Box 1088
Austin, TX 78767

.3 Maintain all erosion/sedimentation controls and other protective measures identified in the SWPPP in effective operating condition.

.4 Perform inspections every five (5) working days and after every ½ inch rainfall event, noting the following observations on an inspection form provided by OWNER:

- a) Locations of discharges of sediment or other pollutants from the site.
- b) Locations of storm water / erosion / sedimentation controls that are in need of maintenance.
- c) Locations of storm water / erosion / sedimentation controls that are not performing, failing to operate, or are inadequate.
- d) Locations where additional storm water / erosion / sedimentation controls are needed.

.5 Maintain at Work site at all times a copy of the SWPPP (with all updates, as described below) and inspection reports.

.6 Update the SWPPP as necessary to comply with TPDES permitting requirements, which includes noting changes in erosion / sedimentation controls and other best management practices that are part of the SWPPP and which may be necessary due to the results of inspection reports. Any SWPPP revisions or updates must be signed and certified by a Certified Professional in Erosion and Sedimentation Control (CPESC) or a Registered Professional Engineer. If the SWPPP includes engineering calculations, then SWPPP must be sealed and signed by a Registered Professional Engineer.

.7 Upon completion of the Work, provide TPDES records to OWNER.

ARTICLE 9 - ENGINEER/ARCHITECT'S STATUS DURING CONSTRUCTION

9.4 Project Representative: *Add the following:*

Engineer shall assign a resident project representative (RPR) to the project who shall serve as an on-site point of contact between the Owner/Operations/Engineer and the Contractor. Duties of the RPR may include:

- Daily site observations. Any defects or deficiencies in the work shall be reported to the Owner and Engineer. RPR shall provide observation, opinions, and recommendations for corrections to the Owner and Engineer. These opinions and observations are exclusive of special inspections and structural observation to be conducted by others.
- Review of project schedules and proposed construction sequencing and provide input to the Owner and Engineer.

Bidding Requirements, Contract Forms and Conditions of the Contract

- Review Contractor's payment applications for accuracy. Advise the Owner for payment or rejection.
- RPR will coordinate with the Engineer who will be responsible for issuing necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of the Work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. RPR may issue Field Orders to Contractor on behalf of Owner and Engineer for minor variations from the requirements of the Contract Documents.
- Notify Owner, Engineer, and the Contractor immediately of the commencement of any work requiring a shop drawing or sample submission if the submission has not been accepted by the Engineer.
- Observe field tests of equipment, structures, and piping, and review the resulting reports, commenting to Owner and Engineer, as appropriate.
- RPR shall not interfere with or dictate Contractor's means and methods with the exception of an imminent health and safety risk. Any concerns with the Contractor's means and methods shall be noted in daily reports and reported to the Owner and Engineer.
- Verify that material and equipment certificates, operation and maintenance manuals, and other data required by the specifications have been provided.
- Participate in all startup, testing, and commissioning activities. This includes coordinating with the Contractor to develop all the checklists, certificates, reports, and forms required by the Contract Documents. RPR to witness all testing and sign-off on all startup documentation.
- Participate in substantial and final completion observations.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.7 Warranty Period: Add the following:

13.7.5 OWNER will utilize a "Warranty Item Form" (attached at the end of this Section) for the purpose of providing Written Notice of warranty defects to CONTRACTOR. CONTRACTOR shall date, sign, complete and return the form to OWNER when the defect is corrected, including such information on or attached to the form to describe the nature of the repairs or corrections that were made. If the defect cannot be corrected in seven (7) Calendar Days, CONTRACTOR shall provide a written explanation to the Owner's Representative describing the repairs needed and the time required to complete the repairs.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment: Delete 14.1.1 and replace with the following (changes to the original text are identified by underlining):

14.1.1 No more often than once a month, unless authorized as part of the Mobilization Prompt Payment Program, CONTRACTOR shall submit to Owner's Representative for review a completed and executed Application for Payment, in a form acceptable to OWNER, covering the Work completed as of the date of the Application and not previously paid and accompanied by such supporting documentation as required by the Contract Documents.

Add the following paragraph to 14.1.1:

.1 Mobilization Prompt Payment Program. During critical mobilization periods, as identified by the CONTRACTOR and as approved by OWNER in accordance with 00700 2.4.2.1 of this Contract, CONTRACTOR shall submit bi-monthly Applications for Payment.

Bidding Requirements, Contract Forms and Conditions of the Contract

The additional Pay Applications will include any costs accrued during the periods of critical mobilization. The Program will allow the CONTRACTOR and Subcontractors to invoice for costs as they are accrued during periods of critical mobilization. The CONTRACTOR shall submit bimonthly invoices to the OWNER for such costs. The CONTRACTOR shall pay Subcontractors for costs within 10 days of receipt of payment from OWNER.

14.1 Application for Progress Payment: Add 14.1.6.3:

.3 Time Extension Request.

14.7 Substantial Completion: Reference 14.7.1, and add the following:

14.7.1.1 For water and wastewater lines construction, Substantial Completion means that the Work, including all testing and disinfection, has been completed and accepted and the line(s) placed into service. A certificate of Substantial Completion will not be issued. Work that remains after Substantial Completion could include the final pavement of roadways, adjustment of structures to final grade and revegetation. Owner's Representative will issue a notice specifying what portion of the Work is partially completed for the purpose of payment and what Work remains to be done on the portion being accepted as Substantially Complete. This subsection 14.7.1.1 changes the 00700 General Conditions definition of Substantial Completion.

14.8 Partial Utilization: Delete 14.8.1 and replace with the following (changes to the original text are identified by underlining):

14.8.1 OWNER at any time may request CONTRACTOR to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to Owner's Representative that such part of the Work is substantially complete and request Owner's Representative to issue a notice specifying what portion of the Work is substantially complete for the purpose of payment and what Work remains to be done on the portion being accepted. CONTRACTOR at any time may notify Owner's Representative that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request Owner's Representative to issue a notice specifying what portion of the Work is partially completed for the purpose of payment and what Work remains to be done on the portion being accepted. The provisions of paragraphs 14.7.1 and 14.7.2 will apply with respect to the notice specifying what portion of the Work is partially completed for the purpose of payment and what Work remains to be done on the portion being accepted."

14.10 Final Application for Payment: Add the following paragraph(s) to 14.10:

14.10.11 TPDES records in accordance with 6.7.4.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

WARRANTY ITEM NO. _____ Hornsby Bend Headworks Improvements
The General Conditions of the Contract require that Warranty Defects be corrected within 7 days after written notice is received.

TO: _____
contractor name address / telephone / fax / email

ATTENTION OF: _____

FROM: _____
project manager name / address / telephone / fax / email

PROJECT: _____
name / location / CIP ID number

END OF ONE YEAR WARRANTY: _____

SUBJECT: _____
[] If checked, the damage requires immediate attention. The Contractor has been called.
[] If checked, the Consultant has been asked to consult with the Contractor on the problem.

PLEASE CORRECT OR REPAIR THE FOLLOWING ITEM(S):

DATE OF REQUEST _____ **SIGNATURE** _____
Project Manager

xc:
[] _____ Phone No. _____
[] _____ Phone No. _____
[] _____ Phone No. _____
[] _____ Phone No. _____

RESPONSE FROM CONTRACTOR: DATE CORRECTION WAS MADE: _____

The Contractor must endeavor to correct the defect within 7 calendar days after written notice is given. If the defect cannot be corrected in that time, Contractor shall provide a written explanation to the Owner's Representative describing the repairs needed and the time required to complete the repairs.

Description of corrections made:

DATE OF REPLY _____ **SIGNATURE** _____

When the repair is complete, the contractor should return a copy to each of the following:
[] _____ Phone No. _____
[] _____ Phone No. _____
[] _____ Phone No. _____
[] _____ Phone No. _____

END

PART 1 – GENERAL

1.1 SECURITY POLICY

Paramount to Austin Water are 1) the production and delivery of an adequate supply of safe drinking water to all customers, 2) uninterrupted collection of wastewater, without spills, and 3) and adequate processing of wastewater to safely return to the environment . The Utility shall provide high quality physical security at all its facilities and shall initiate, implement, enforce, and update as needed, specific rules and procedures to protect property, personnel, facilities, and material against unauthorized entry, trespass, damage, sabotage, or other acts that might threaten the security of these facilities, the quality of the drinking water, or the quality of treated wastewater.

1.2 RELATED DOCUMENTS

The most current version of the Austin Water’s “Facility Security Procedures for Contractors, SP-1070” shall be considered a part of this Specification Section.

1.3 SECURITY PROCEDURE

The CONTRACTOR shall become familiar with this Specification Section and the most current version of the Austin Water’s “Facility Security Procedure for Contractors, SP-1070”, and shall assure that all SUBCONTRACTORS do likewise. The CONTRACTOR and each SUBCONTRACTOR shall sign an affidavit attesting to the fact that they have read, understood, and will abide by this procedure. The CONTRACTOR’s signed affidavit shall be delivered to the Utility no later than the Pre-construction Conference and before any access is allowed to the work site.

1.4 SUBMITTALS

The CONTRACTOR shall submit a “Contractor’s Acknowledgement” form (Appendix A of “Facility Security Procedure for Contractors, SP-1070”) signed by the Contractor’s Project Manager and Site Superintendent no later than the Pre-Construction Conference. This submittal shall be an original document, with original signatures. Copies or facsimiles will not be accepted.

The CONTRACTOR shall submit a “Contractor’s Acknowledgement” form (Appendix A of “Facility Security Procedure for Contractors, SP-1070”) signed by each Subcontractor’s Project Manager and Site Supervisor no later than two weeks prior to the date the Subcontractor wishes to enter the secured area. Each submittal shall be an original document, with original signatures. Copies or facsimiles will not be accepted.

The CONTRACTOR shall submit an “Application for Authorization to Enter Secured Austin Water Utility Facilities” form (Appendix B of “Facility Security Procedure for Contractors, SP-1070”) for every Contractor’s and Subcontractors’ employee that will need to enter the secured area. Each application shall be accompanied by a complete “Criminal History Records Check Disqualifying Criminal Offenses” (Appendix C) and a “Background Security Check” , performed by a governmental law enforcement agency, as described in the “Facility Security

Procedure for Contractors, SP-1070". These submittals shall each be an original document, with original signatures. Copies or facsimiles will not be accepted.

The CONTRACTOR shall submit a sample of their company's Security Identification Badge, sized and formatted as described in the "Facility Security Procedure for Contractors, SP-1070".

PART 2 – EXECUTION

2.0 WORK SCHEDULE

Normal work schedule is between the hours of 7.A.M thru 3.30 P.M. Contractor will be allowed to work from Monday thru Friday from the hours of 7:00 A.M. to 6: P .M. with permission from the project Engineer. Contractor intending to work night and weekends should get special clearance from the Project Engineer, Project Manager and the plant superintendent or manager.

2.1 SITE SECURITY

The CONTRACTOR shall be responsible for maintaining absolute site security and for following all provisions of the UTILITY's "Facility Security Procedures for Contractors, SP-1070" in good faith. Failure to follow any of the provisions of this procedure shall be considered a breach of this CONTRACT.

2.1.1 FENCES AND GATES

All existing fences and gates shall be maintained secure. If existing fences or gates must be moved or removed, equally secure temporary fencing shall be erected to maintain site security before any removal is initiated. If there is no existing fencing, temporary fencing and gates, as identified in another section of these specifications, shall be erected before any other work is performed. Gates shall be maintained closed and locked at all times. If necessary for convenient access, a guard, fluent in speaking and reading English, may be stationed at the gate to open and close it. In addition, the guard shall notify the Contractor's Site Superintendent of the arrival of all deliveries and shall examine the Identification Badges of all personnel seeking to enter the site, to assure that only persons with proper Security Identification Badges are allowed to enter.

2.1.2 BUILDINGS

All existing buildings shall be maintained secure. If access to an existing building is controlled by an existing security system, the CONTRACTOR, all SUBCONTRACTORS, and their respective employees shall follow the procedures for access as described in the "Facility Security Procedures for Contractors, SP-1070"

2.2 PERSONNEL

Personnel access to the construction site shall be limited to those identified in the "Facility Security Procedures for Contractors, SP-1070", and access will be controlled by the use of Security Identification Badges. The CONTRACTOR shall be responsible for assuring that all personnel allowed to enter the work site have proper Security Identification Badges. A proper Security Identification Badge is a picture badge, as described in SP-1070, either issued by the CONTRACTOR or SUBCONTRACTOR with the proper Utility-applied authorization decal, or

a badge issued by the UTILITY. The CONTRACTOR shall deny access to any person lacking a proper Security Identification Badge. Any person discovered on the work site without a proper identification badge will be escorted off the site and may be subject to arrest by law enforcement authorities.

2.2.1 ACCESS AUTHORIZATION

The CONTRACTOR shall provide an original “Application for Authorization to Enter Secured Austin Water Utility Facilities” (including Background Security Check) for each person who will be working on the site at least **five (5) working days** prior to the date that person is scheduled to begin work on the site. The UTILITY shall determine whether or not to grant each person access to the work site based upon the results of the Background Security Check. Random audits shall be performed by the UTILITY on the results of the Background Security Checks.

The original “Application for Authorization to Enter Secured Austin Water Utility Facilities” shall be kept on file by the Utility’s Security Manager or Project Manager. A copy of this document will be returned to the CONTRACTOR with an indication of the approval or denial of access for the named employee. The Background Security Check shall be returned to the CONTRACTOR also, but must be kept available for audit until one year following Final Completion.

2.2.2 IDENTIFICATION BADGES

The CONTRACTOR shall provide Security Identification Badges for each of their employees and their SUBCONTRACTORS’ employees. The badges shall be picture badges conforming to all the requirements of the “Facility Security Procedure for Contractors, SP-1070”. The badge must be worn by all persons at all times while present on the work site, and must be worn above the waist and be clearly visible from the front. Following a satisfactory review of each person’s Background Security Check, and presentation of government-issued picture identification, the UTILITY will apply a permanent access authorization decal to the badge.

3.0 PARKING

Due to limited parking spaces, contractors and their subcontractors are expected to park their vehicles outside the facility. If there are spaces for parking inside the facility, the AWU superintendent will notify the contractors through their project manager or superintendents.

--- End of Section 00819 ---



Austin Water

FACILITY SECURITY PROCEDURE FOR CONTRACTORS

SP-1070

**Austin Water
Water and Wastewater Treatment Plants,
Water Pump Stations and Reservoirs, and Lift Stations
Service Centers and Administration Buildings**

Facility Security Procedure for Contractors

SP-1070

Revision Record

Version	Date	Description- Affected Pages	Approved By
1	16 Sept 2014	Updated, included all facilities All pages	Rick Verardi Security Mgr.
2	16 Sept 2018	Updated decal issuing/valid dates	Rick Verardi Security Mgr.
3	24 Oct 2019	Updated Escorted access, removed decal, added ID Badges	Rick Verardi Security Mgr.

FACILITY SECURITY PROCEDURE FOR CONTRACTORS

SP-1070

Table of Contents

1 SECURITY POLICY 4

2 SECURITY PROCEDURE 4

 2.1 PURPOSE 4

 2.2 SECURITY PROCEDURE MAINTENANCE 4

 2.3 RESTRICTED AREA ACCESS POLICY 4

 2.3.1 Unescorted Access 4

 2.3.2 Escorted Access 4

 2.4 CONTRACTOR’S BASIC SECURITY RESPONSIBILITIES 5

 2.4.1 Read-and-Follow Requirement 5

 2.4.2 Basic Security Functions 5

 2.5 APPLICATIONS FOR AUTHORITY TO ENTER FACILITIES, BACKGROUND SECURITY CHECKS AND IDENTIFICATION BADGES 5

 2.5.1 Applications for Authority to Enter Facilities 5

 2.5.2 Background Security Checks 5

 2.5.3 Security Identification Badges 6

 2.5.4 Identification Badge Control and Handling 6

 2.5.5 Revoking Access Authorization 6

 2.6 FACILITY SECURITY AND ACCESS CONTROL 7

 2.6.1 Access to Facilities 7

 2.6.2 Site Security Requirements 8

 2.6.3 Combinations and Key Controls 8

 2.6.4 Operation of Access-Controlled Doors at Remote Facilities 8

 2.6.5 Tailgating 9

APPENDIX A: 10

APPENDIX B: 11

APPENDIX C: 12

1 SECURITY POLICY

Paramount to the Austin Water is:

- The production and delivery of adequate supply of safe drinking water to all customers
- Uninterrupted collection of wastewater, without spills, and
- Adequate processing of wastewater to be safely returned to the environment.

The Utility shall provide high quality physical security at all its facilities and shall initiate, implement, enforce, and update as needed, specific rules and procedures to protect property, personnel, equipment, and material against unauthorized entry, trespass, damage, sabotage, or other acts that might threaten the security of essential facilities, the quality of the drinking water, or the quality of treated wastewater.

2 SECURITY PROCEDURE

2.1 PURPOSE

The purpose of this Procedure is to provide Contractors and Subcontractors with standard operating methods, directives and instructions in accordance with the Utility's mission to protect its assets.

2.2 SECURITY PROCEDURE MAINTENANCE

The maintenance and updating of this Facility Security Procedure is the responsibility of the Security Manager with input from the Treatment Program Division Managers and Facilities Management.

This Facility Security Procedure will be reviewed and updated at least yearly. A record of all revisions will be maintained at the front of all copies.

2.3 RESTRICTED AREA ACCESS POLICY

2.3.1 Unescorted Access

Unescorted access is granted to contractors that have completed the "Application for Authorization to Enter Secured Austin Water Facilities" (Appendix B) and clear the background security check. An Austin Water technology badge or identification badge will be issued.

2.3.2 Escorted Access

Escorted access is allowed provided an Austin Water employee physically escorts the visitor and is present with the visitor at all times. Contractors scheduled to work on site are **NOT** eligible for Escorted Access while working on site and must apply for Unescorted Access (see 2.3.1 above).

The exception for escorted access is for those that will be on site for a short period of time, usually under one hour, such as deliver drivers. All others on site must have an escort.

In the event of an unplanned facility emergency that requires an immediate response from a contractor, that contractor may be granted temporary access to the facility. The contractor must be met at the facility entry point by an Austin Water employee escort, must sign the visitor guest log (which will include the name of AW employee escorting the contractor), and must remain in the presence of the escorting AW employee for the duration of the visit.

2.4 CONTRACTOR'S BASIC SECURITY RESPONSIBILITIES

2.4.1 Read-and-Follow Requirement

All Contractors and Subcontractors shall read and follow this Procedure. The Contractor's Project Manager and Site Superintendent, and all Subcontractors' on-site Supervisors will be required to sign the "" (Appendix A) attesting to the fact that they have read and understood this Procedure. The "Contractor's Acknowledgement" signed by the Contractor's Project Manager and Site Superintendent shall be delivered to the Utility at the Pre-construction Conference, and before any access is permitted to the work site. The "Contractor's Acknowledgement" signed by the Subcontractors' Project Managers and Site Supervisors will be delivered to the Utility at least **two (2) weeks** before the Subcontractor requires access to the site.

All Contractor's and Subcontractors' employees are expected to be thoroughly knowledgeable in the contents of this Procedure. Contractors and Subcontractors shall instruct their employees on the provisions and requirements of this procedure and shall emphasize the importance of their compliance. **Any person's failure to follow any of the provisions or requirements of this Procedure shall be removed from the job site and lose access privileges.**

2.4.2 Basic Security Functions

The basic security functions of Contractors and Subcontractors shall center on the protection of water and wastewater quality, personnel, and the Utility and Contractors' property. These basic functions will involve securing and monitoring the project site, controlling access, preventing unlawful entry, unlocking and locking buildings, and enforcing Utility rules, policies, procedures and directives.

Contractors and Subcontractors shall provide deterrence against fire, theft, vandalism, and trespass and shall assist in the elimination of safety hazards and security breaches. In some cases, Contractors and Subcontractors will be called upon to assist in the detection and detention of persons guilty of trespassing on or committing offenses on Utility property. Uniformed officers from the Austin Police Department and local Sheriffs' Departments shall provide the enforcement support for criminal acts committed on Utility property.

Contractors and Subcontractors shall accurately report and record all transgressions and incidents.

2.5 APPLICATIONS FOR AUTHORITY TO ENTER FACILITIES, BACKGROUND SECURITY CHECKS AND IDENTIFICATION BADGES

2.5.1 Applications for Authority to Enter Facilities

The Contractor shall submit an "Application for Authorization to Enter Secured Austin Water Facilities" (Appendix B) for each of their employees and their Subcontractors' employees before that employee is allowed to enter the project site. All information requested on the application shall be provided, including required signatures. Each application submitted shall be an original document. Copies or facsimiles are not acceptable.

Each application shall be accompanied by a complete background security check. Each employee's application and background security check shall be submitted at least **five (5) working days** prior to the first day that employee is to work on the secured site to allow for adequate review of the documents. Each background check submitted shall be an original document. Copies or facsimiles are not acceptable.

2.5.2 Background Security Checks

The Contractor shall submit a "Criminal History Records Check Disqualifying Criminal Offenses" (Appendix C) and provide a current **fingerprint based** background security check for each of their employees and their Subcontractors' employees, submitted along with the "Application for Authorization to Enter Secured Austin

Water Facilities” (Appendix B). The background check must be performed by either the United States Federal Government (FBI) or the Department of Public Safety from the employee’s home state (the state in which the employee resides and from whom they obtained their driver’s license or identification card). The background security check for a non-US citizen shall be performed by their native country’s national law-enforcement agency (e.g. a Canadian citizen shall submit a background check performed by the Royal Canadian Mounted Police).

The results of each background check shall be dated and submitted as an original, certified official document from the agency performing the check, and shall bear all appropriate letterheads, seals, and signatures. The background check shall clearly indicate the agency performing the check and include their address and telephone number. Background checks performed less than one year prior to the subject Contract’s Notice-to-Proceed will be acceptable. The results of background checks may be audited at any time.

2.5.3 Security Identification Badges

Austin Water utilizes two methods of Security ID Badges

ID Badge: This badge is issued to contractors working at a facility that require access to the facility grounds via the entrance gate. An example would be long term contractors. Badges are given an **expiration date** set to expire at a date determined by Security Management. Badges are issued for a maximum of two years.

Technology Badge: This badge is issued to contractors working at a facility that require access to secured buildings on an AW site. Examples are the cleaning crew, security guards, and contractor superintendents supervising multiple job sites. Badges are given an expiration date set to expire at a date determined by Security Management. Badges are issued for a maximum of two years. **Technology Badges are issued at the discretion of Security Management.**

Authorization to enter protected facilities and the issuing of an ID Badge or Technology Badge shall require a review of the background security check and approval from Security Management.

A new background check is required prior to the issuance of another Badge after the previous one expires.

2.5.4 Identification Badge Control and Handling

All personnel on the job site shall maintain the Security Identification Badge on their person at all times. The Badge should be displayed on their outer clothing in a clear manner. Arm band ID holders are acceptable.

Security Identification Badge holders will take reasonable care to protect their badge from unauthorized use. Badge holders will not allow others to use their badge.

In the event that a Security Badge holder discovers that their badge has been lost, the badge holder shall immediately report the loss to the Contractor’s Site Superintendent, who will immediately report the loss to the AWU Project Manager, and to the AWU Plant Superintendent (at treatment plants) or the AWU Operation Manager at the South First Support Center (512-972-0502) (for pump stations and reservoirs).

2.5.5 Revoking Access Authorization

Authorization to enter and/or work on any Austin Water site is at the sole discretion of the Utility and may be revoked at any time.

Authorization to enter secured Utility sites shall be revoked immediately for the following reasons:

- The badge holder ends their employment with the Contractor or Subcontractor

- The badge holder allows another person to use their badge, or the badge holder permits, or allows another person without a badge to enter a secured site.
- The badge holder acts without authorization to defeat any security device at any secured site.
- The badge holder's actions (or inaction) result(s) in damage to Utility facilities or threaten(s) the quality of the drinking water.
- The badge holder has been involved in a criminal action on site and has been determined as a threat to any persons or property at this site.

Personnel in the following positions may revoke Access Authorization:

- AWU Director and Assistant Directors for Treatment and for Engineering
- AWU Division Heads, Plant Superintendents, and Supervisors in the Treatment Program Area
- AWU Security Manager
- AWU and Consultant's Project Managers
- City of Austin Public Works Project Managers
- Contractor's Project Manager and Site Superintendent

If a person in one of the positions listed above ever believes that another person's Access Authorization should be immediately revoked to eliminate or mitigate a threat to site security or the security of the water, they shall contact the Project Manager or the Contractor's Site Superintendent. The badge shall be taken from the person and they shall be escorted from the work site.

2.6 FACILITY SECURITY AND ACCESS CONTROL

2.6.1 Access to Facilities

Access to Utility facilities shall be limited to:

- City of Austin Public Works or Austin Water employees who possess appropriate unescorted access authorization by the Utility and have a valid Security Identification Badge.
- Contractor's and Subcontractors' employees who possess appropriate access authorization(s) and possess and wear a proper Utility-authorized Security Identification Badge. All Contractor's and Subcontractors' employees will follow Utility procedures while on the site.
- Contractor's or Subcontractors' supplier delivery personnel. Delivery personnel may be permitted access to complete material deliveries and will not be required to obtain a Security Identification Badge. Delivery personnel shall be closely escorted within the secured site by the Contractor's Site Superintendent and shall be permitted access only for the time required to unload the material being delivered. Under no circumstances will any delivery personnel be allowed to remain on site for longer than one hour. If delivery of any material or equipment is projected to require more than one hour's time, an "Application for Authorization to Enter Secured Water Treatment Facilities", complete Background Security Check, and Security Identification Badge will be required for all personnel associated with making that delivery.
- Visitors who have been authorized in advance, in writing, by the Plant Superintendent or Division Manager. (Persons who perform work on the site or deliver equipment or materials to the site are not considered to be visitors) Visitors who have been authorized such access must be closely escorted within the Utility facility by a Utility employee who possesses the appropriate access authorization and Security Identification Badge. The Entry gate guard staff shall maintain a Visitor Register to record all visits. The Visitor Register shall record the name of each visitor, their employer, date of the visit, arrival and departure times, the purpose of visit and the name of the escort. This Visitor Register shall be made available at every project progress meeting and shall be delivered to the Utility Project Manager at the

end of the project. Visitors do not require an ID badge. Contractors are not eligible for access to the facility as a visitor except for pre-bid meetings.

2.6.2 Site Security Requirements

All Utility facilities shall be kept secure at all times. The following provisions, at a minimum shall be maintained:

- An eight-foot high perimeter fence shall be maintained without gaps or holes, with gate(s) locked with a tempered chain and padlock. A security guard may also be employed if desired by the Contractor or required by other sections of the Contract.
- All perimeter door(s) (if present) shall be locked and alarmed.
- Other installed security devices (if present) such as motion detectors, fence monitors and CCTV cameras shall be operational.
- All classified material (if present) within shall be properly stored.

During the Contractor's working hours, the Contractor's Site Superintendent shall maintain an active cellular telephone to enable the Utility's Plant Superintendent or the Central Security Operator to contact him/her in the event that a security alarm is triggered on the job site. If an alarm is triggered and the Plant Superintendent or the Central Security Operator is unable to contact the Contractor's Site Superintendent to ascertain the reason for the alarm, law enforcement officers will be summoned to the site.

At the beginning of each day that the Contractor or a Subcontractor performs work on a pump station or reservoir site, a Supervisor authorized by the Contractor (and previously identified to the pump station or reservoir Central Security Operator) shall open the security gate to the site as follows:

- Place a telephone call to the Central Security Operator (512-972-0502) before unlocking the gate.
- Identify themselves and advise the Central Security Operator that they are at the site entrance, identify where on the site they intend to work, and advise that they are about to open the gate. The Central Security Operator will disarm any alarms that might be triggered by the gate opening or by employees working in the areas identified. The Central Security Operator will advise the Supervisor placing the call when the alarms are disarmed.
- Unlock the gate, enter the site, and lock the gate or post a guard to assure that only authorized personnel wearing required, proper Security Identification Badges may enter.

At the end of every work day at a pump station or reservoir site, when the last employee has left the job site, the Contractor's Site Superintendent shall place a call to the Central Security Operator to advise that everyone has left the site, that the security gate is locked, and that the alarms should be rearmed.

2.6.3 Combinations and Key Controls

Knowledge of the combination of locks and access to any keys will be limited to designated individuals assigned to work in the associated facilities. All combinations will be changed regularly at times designated by the Division Manager, and whenever it is suspected the combination has been compromised.

Facility keys are cut to fit a number of cylinders. If a key shared with the Contractor is lost, all similar lock cylinders, whether present on the site or off the site, will be re-keyed by the Utility, at the expense of the Contractor.

2.6.4 Operation of Access-Controlled Doors at Remote Facilities

Entry to all remote facilities will be coordinated with the Central Security Operator. Many facilities include an access-control door. An access-control door may be used by authorized Security Identification Badge holders for entry and exit using the following procedure:

Entry procedure:

1. Contact the Central Security Operator (512-972-0502) and request permission to enter. Hang up the telephone.
2. The CSO will call back the person requesting to enter (on their previously authorized number) and verify the request.
3. The CSO will unlock the door or request that the person's Security Identification Badge be presented to the exterior card reader.
4. Unlock the deadbolt (if present)
5. Enter PIN
6. Open door
7. Enter
8. Close the door

Exit procedure:

1. Press crash bar
2. Open door
3. Exit
4. Close the door
5. Lock the deadbolt (if present)
6. Contact the CSO and request that the door be locked, advise them that the site's alarms need to be re-armed
7. The CSO shall lock the door and re-arm all alarm devices
8. The CSO shall call back and ask the requestor to verify that the door is locked

2.6.5 Tailgating

Tailgating is the entry of multiple individuals through an access-controlled door or gate without closing the door (or gate) between entries. Tailgating is allowed by authorized ID Badge holders provided that each presents their badge to the card reader or person controlling access prior to entry. Tailgating by unauthorized individuals or anyone not possessing an authorized ID Badge is not allowed.

APPENDIX A:

**CONTRACTOR'S ACKNOWLEDGEMENT
AUSTIN WATER
FACILITY SECURITY PROCEDURES FOR CONTRACTORS**

PROJECT NAME: _____

CIP/PROJECT NUMBER: _____

By signing this document, I acknowledge that I have received a copy of the Austin Water **SP-1070 FACILITY SECURITY PROCEDURE FOR CONTRACTORS** and that I have read it and understand its contents. Furthermore, I agree to follow all the provisions contained therein.

CONTRACTOR: _____

PROJECT MANAGER:

_____	_____
Print	Signature

SITE SUPERINTENDENT:

_____	_____
Print	Signature

SUBCONTRACTOR: _____

PROJECT MANAGER:

_____	_____
Print	Signature

SITE SUPERINTENDENT:

_____	_____
Print	Signature

SUBCONTRACTOR: _____

PROJECT MANAGER:

_____	_____
Print	Signature

SITE SUPERINTENDENT:

_____	_____
Print	Signature

APPENDIX B:

**APPLICATION FOR AUTHORIZATION
TO ENTER SECURED AUSTIN WATER FACILITIES
(CONTRACTOR EMPLOYEE)**

Date of Application: ____ - ____ - ____ **Estimated Project End Date:** _____
mm dd yyyy

PROJECT: _____ **Cip /Proj No** _____

CONTRACTOR: _____

SUBCONTRACTOR: _____

SITE(S) TO BE ACCESSED: _____

APPLICANT: _____
Last Name First Name Middle Name

Job Title: _____

Home Address: _____
Street / Apt No.

City State Country Zip Code

Telephone Nos.: (____) _____ - _____ (____) _____ - _____ Birth date: ____ - ____ - ____
Home Work mm dd yyyy

Birth place: _____
City County State Country

Driver's License: _____
Number Class Exp Date (mm-dd-yr) Issuing State or Country

Signature: _____

SUPERVISOR: _____
Last Name First Name M.I.

Job Title: _____ Work Telephone No. _____

Signature: _____

AUTHORIZATIONS:

CONTRACTOR'S PROJECT MANAGER: _____
Print Sign

UTILITY'S PROJECT MANAGER: _____
Print Sign

SITE / DIVISION MANAGER: _____
Print Sign

AUTHORIZED FOR BADGE PREPARATION: _____
Security Management

Background Check Completed / Submitted: Date _____ ID Badge // TECH Badge Date Audited: _____

APPENDIX C:

Criminal History Records Check Disqualifying Criminal Offenses

An individual has a disqualifying offense if the individual has been convicted of, or found not guilty of by reason of insanity, any of the disqualifying crimes listed in this paragraph in any jurisdiction during the 10 years before the date of the individual’s application for unescorted access authority, or while the individual has unescorted access authority. The disqualifying criminal offenses are as follows:

1	Felony involving burglary.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	13	Murder.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2	Felony involving theft.	<input type="checkbox"/>	<input type="checkbox"/>	14	Assault with intent to murder.	<input type="checkbox"/>	<input type="checkbox"/>
3	Felony involving dishonesty, fraud, or misrepresentation.	<input type="checkbox"/>	<input type="checkbox"/>	15	Espionage.	<input type="checkbox"/>	<input type="checkbox"/>
4	Felony involving possession or distribution of stolen property.	<input type="checkbox"/>	<input type="checkbox"/>	16	Rape or aggravated sexual abuse.	<input type="checkbox"/>	<input type="checkbox"/>
5	Aggravated assault.	<input type="checkbox"/>	<input type="checkbox"/>	17	Kidnapping or hostage taking.	<input type="checkbox"/>	<input type="checkbox"/>
6	Felony involving bribery.	<input type="checkbox"/>	<input type="checkbox"/>	18	Treason.	<input type="checkbox"/>	<input type="checkbox"/>
7	Terrorist threat.	<input type="checkbox"/>	<input type="checkbox"/>	19	Felony involving dishonesty, fraud, or misrepresentation.	<input type="checkbox"/>	<input type="checkbox"/>
8	Armed or felony unarmed robbery.	<input type="checkbox"/>	<input type="checkbox"/>	20	Class A Criminal Mischief (500 or Above).	<input type="checkbox"/>	<input type="checkbox"/>
9	Felony involving willful destruction of property.	<input type="checkbox"/>	<input type="checkbox"/>	21	Criminal Trespass at Critical Infrastructure Facility.	<input type="checkbox"/>	<input type="checkbox"/>
10	Felony involving importation or manufacture of a controlled substance.	<input type="checkbox"/>	<input type="checkbox"/>	22	Burglary of Vehicle	<input type="checkbox"/>	<input type="checkbox"/>
11	Extortion.	<input type="checkbox"/>	<input type="checkbox"/>	23	Engaging in Organized Criminal Activity	<input type="checkbox"/>	<input type="checkbox"/>
12	Felony arson.	<input type="checkbox"/>	<input type="checkbox"/>	24	Conspiracy or attempt to commit any of the criminal acts listed on this page.	<input type="checkbox"/>	<input type="checkbox"/>

By signing below I certify that I do not have any of the above listed disqualifying criminal offenses.

Also signing below indicates my understanding that I have a continuing obligation under Title 49, CFR, Parts 1542.209 and 1544.229 to disclose to Austin Water within 24 hours if I plead guilty or nolo contendere (“no contest”) to, have an adjudication withheld, have been convicted or found not guilty by reason of insanity to any of the disqualifying crimes listed on this application or the federal security regulations.

Also signing below indicates the information I have provided on this application is true, complete, and correct to the best of my knowledge and belief and is provided in good faith. I understand that a knowing and willful false statement on this application can be punished by fine or imprisonment or both. (See section 1001 of Title 18 United States Code.)

PRINT NAME

SIGNATURE

DATE

1. PAYMENT**1.1. Classification Definitions, Building and Heavy and Highway**

1.1.1. Definitions for Building Construction and Heavy and Highway classifications shall conform to the current "Occupational Information Network (O*NET)" as approved by the U.S. Department of Labor. For interpretive guidance, the Core Task list in O*NET will be used to make prevailing wage determinations. Final classification of workers will be made by the OWNER.

1.2. Minimum Wages

1.2.1. Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) or the \$22.05 minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the \$22.05 minimum wage required.

1.2.2. Such wage rates shall be used throughout the Contract. If a classification is to be used, which is not listed in the attached wage rates, CONTRACTOR shall submit to OWNER rates and classification proposed for use, for approval, prior to performance of the Work.

1.2.3. All laborers and mechanics working upon the Work for this Project shall be paid weekly, unconditionally and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by Secretary of Labor under the Copeland Act, Title 29 CFR, Part 3) full wages accrued and when due, computed at rates not less than wage rates bound herein pertaining to type of Work being performed. When Work is of such a nature that both Building and Heavy and Highway wage scales are incorporated into contract, CONTRACTOR shall pay wage rates to mechanics or laborers performing Work in more than one classification at the rate indicated for each classification for time actually worked as determined by area practice applicable to type (Site Construction Crafts or Building Construction Crafts) of Work being performed without regards to skill. Salaried specialists (project superintendent and administrative personnel only) in the permanent employment of CONTRACTOR do not fall under any Wage Classification. A supervisor/foreman who is not exempt under 29 CFR Part 541 and who spends more than a substantial amount of time (20 percent) in a given workweek as a laborer or mechanic must be paid the applicable Wage Rate for the classification of work performed for all hours engaged in such work as a laborer or mechanic.

1.2.4. Wage rates shall be posted by CONTRACTOR at site(s) of Work in prominent, easily accessible places where they can be seen by all workers. The following shall also be posted by the CONTRACTOR: City of Austin wage contact posters (English and Spanish), City of Austin Equal Employment Opportunity posters (English and Spanish), Workers' Compensation Notice (English and Spanish), Texas Payday Law (English and Spanish), City Rest Break Ordinance (English and Spanish), City of Austin Non-Discrimination Statement (related to Title VI of the Civil Rights Act), and Federal Notices, as appropriate.

1.3. Overtime Requirements

Bidding Requirements, Contract Forms and Conditions of the Contract

- 1.3.1.** No CONTRACTOR, Subcontractor, or Sub-subcontractor contracting for any part of contract Work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he is employed on such Work, to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times their basic rate of pay for all hours in excess of forty hours in such workweek.
- 1.3.2.** Overtime wages must be calculated using the Adjusted Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

2. APPRENTICES

2.1. Locally and Federally Funded Projects

- 2.1.1.** The terms journeyman and apprentice apply to both union and independent workers, and are not intended to imply that these positions are union workers only.
- 2.1.2.** Apprentices and Trainees will be permitted to work as such only when they are registered, individually, under a bonafide Apprenticeship or Trainee program registered with the Bureau of Apprenticeship and Training, United States Department of Labor. The allowable ratio of Apprentices or Trainees to journeymen in any craft classification shall not be greater than the ratio permitted to CONTRACTOR as stated in the registered apprenticeship program standards. Any employee listed on a payroll at an Apprentice or Trainee wage rate, who is not registered as above, shall be paid the wage rate provided in Contract for Work employee actually performed. CONTRACTOR, Subcontractor, or Subsubcontractor shall furnish to OWNER written evidence of registration of his program for Apprentices and Trainees as well as of the appropriate ratios and wage rates, for the area of construction prior to using any Apprentices or Trainees on this Contract.

3. WITHHOLDING PAYMENTS

- 3.1.** OWNER may withhold or cause to be withheld from CONTRACTOR as much of the accrued payments as necessary to pay laborers and mechanics employed by CONTRACTOR, Subcontractors, or Sub-subcontractors the amount of wages required to comply with the Contract. In the event of nonpayment of wages to laborers or mechanics working on the site of the Work of this Contract, OWNER may, after Written Notice to CONTRACTOR, take such action as may be necessary to cause suspension of any further payments or advance of funds to CONTRACTOR until such violations have ceased and until restitution has been made. Payments may also be withheld if CONTRACTOR fails to maintain weekly payroll reports or fails to provide copies in a timely manner upon request of OWNER.

4. PAYROLLS

- 4.1.** CONTRACTOR shall keep records showing:
 - 4.1.1.** The name, address, e-mail address, and occupation of each worker employed by the CONTRACTOR or subcontractor(s) in the construction of the public work.
 - 4.1.2.** The actual per diem wages paid to each worker.
 - 4.1.3.** Employee Certification. CONTRACTOR, all levels of Subcontractors shall identify in writing, the classification agreed to by all laborers and mechanics employed by them in the execution of the Contract, and pay not less than rates specified in the

Bidding Requirements, Contract Forms and Conditions of the Contract

attached Wage Rate Determination(s). Contractor shall prepare a completed form for the signature of Employee and a witness shall sign the form in the presence of Employee. If work performed by worker is different than the trade classification agreed upon, the worker shall be paid for that work no less than the minimum prevailing wage for that specified trade.

- 4.1.4.** Payroll Deduction Authorization Form. CONTRACTOR, Subcontractor, and Sub subcontractor shall prepare for employee signature a payroll deduction authorization form to identify all payroll deductions excluding those required by statute, such as federal income taxes, Medicare and social security.
- 4.2.** The record shall be open at all reasonable hours to inspection by the officers and agents of the OWNER as requested. CONTRACTOR will be responsible to provide copies of records as requested by the OWNER within two (2) working days. Payrolls relating to this Work shall be maintained during term of Contract and preserved for a period of three (3) years thereafter by CONTRACTOR for all laborers and mechanics working on the Work.
- 4.3.** A Statement of Compliance, a letter signed and dated by party responsible for supervising the payment of persons employed by CONTRACTOR or subcontractor shall accompany payrolls required by OWNER. The Statement of Compliance letter shall identify but is not limited to:
 - 4.3.1.** Name of signatory party and title
 - 4.3.2.** Name of project, payroll period and
 - 4.3.3.** Name of CONTRACTOR or Subcontractor
- 4.4.** The signed letter attests that the payroll complies with 29CFR issued by the Secretary of Labor.
- 4.5.** Federal Funding. In the event that federal funding is used:
 - 4.5.1.** Contractor and all levels of Subcontractors shall submit weekly certified payroll reports and signed wage compliance statements to the OWNER's designated office no later than seven (7) calendar days after the scheduled payday.
 - 4.5.2.** Contractors and all levels of Subcontractors shall pay all "mechanics and laborers" not less often than once per week, for work performed the previous week.
 - 4.5.3.** Submit to the OWNER's designated office Standard Form 1413, Statement and Acknowledgement, from each subcontractor prior to the subcontractor performing work on the project.
 - 4.5.4.** Contractor is responsible for providing a prevailing wage compliance software or application for this project, such as LCPTracker, eMars, or equivalent. Contractor is responsible for all costs associated with purchasing the prevailing wage compliance software or application and should include this cost in their Bid. At a minimum, the software or application must meet the following requirements:
 - A web or cloud based, secure system providing an automated process for collecting certified payroll reports
 - Provide OWNER access to review certified payrolls for compliance with Section 00830
 - Incorporate the contract specific Wage Rates (Section 00830HH and/or BC)
 - Provide initial training, setup, and support to all users
 - Provide the mapping and capability to import payrolls from both the prime

and all subcontractors

- No additional cost for multiple users or subcontractors
- Provide error messages and remedies for potential areas of non-compliance
- Store and provide access to worker apprenticeship or trainee certificates

5. NONCOMPLIANCE

- 5.1.** According to Chapter 2258 Texas Government Code Title 10A, a CONTRACTOR or subcontractor(s) who violates this section shall pay to the political subdivision on whose behalf the contract is made, \$60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.
- 5.2.** Confirmed Disciplinary action taken by CONTRACTOR against employees who provide information during an interview or investigation by the OWNER on wages received, may result in suspension or debarment from consideration of award of City contracts.
- 5.3.** All employers are required to complete Wage Theft Training within 30 days of being awarded a City contract and certify they have not been adjudicated for certain offenses related to the City of Austin's Wage Theft Ordinance No. 20221002-031.
- 5.4.** The misclassification of employees as independent contractors may deny workers City of Austin minimum wage, overtime pay, and other protections. Any worker who does not have statutory deductions taken out of his pay is considered a subcontractor and must be on the approved compliance plan through ASMBR.

6. AREAPRACTICE

- 6.1.** Heavy and Highway Construction Rates shall be used on this Project, unless the Project consists primarily of Building Construction and Building Construction Rates are to be used.
 - 6.1.1.** Building Construction consists generally of all aspects of construction of buildings, which are sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment or supplies, including without limitation the installation of utilities and equipment, both above and below grade level, as well as incidental demolition, grading, utilities, paving and other site work. Buildings need not be "habitable" to be classified as Building Construction and the installation of heavy machinery and/or equipment will not generally change a Building Construction project's classification.
 - 6.1.2.** The determination of Building Construction Wage Rates includes all construction trades and work necessary to complete a building, regardless of the number of contracts involved, so long as all such contracts are closely related in purpose, time and place.
- 6.2.** For projects that involve both Building Construction and Heavy and Highway trades, the following classifications shall be used:
 - 6.2.1.** A multiple classification shall be used if Building Construction items are more than 20% of the Heavy and Highway project cost.
 - 6.2.2.** A multiple classification shall be used if Heavy and Highway Construction items are more than 20% of the Building Construction Project cost.
- 6.3.** Split classifications/multiple wage rate schedules: When construction work requires that

an employee perform work under multiple classifications or multiple wage scales, the employer must pay that worker (at least) the highest prevailing wage or the employer payroll records must accurately set forth the times spent performing the work of each classification and under each scale. For those projects that involve both Building Construction and Heavy and Highway trades, the Heavy and Highway wage rates may only be applied to workers when engaged in site work at least five (5) feet beyond the building.

7. WAGE UPDATES AFTER CONTRACT AWARD

- 7.1. A wage determination modification issued after contract award, or the start of construction will generally not apply to the contract. However, in certain circumstances, such as substantial contract modifications or the exercise of options, an updated wage determination modification must be included in the contract after contract award.
- 7.2. Wage determinations must be updated after contract award when:
 - 7.2.1. The contract or order is changed to include additional, substantial construction not within the scope of work, or
 - 7.2.2. The contract or order is changed to require the contractor to perform work for an additional time period not originally obligated, including when an option is exercised on a contract or order.
- 7.3. Wage determinations in contracts requiring construction over a period of time that are not tied to the completion of any particular project (such as IDIQ contracts, schedule contracts, or long-term operations and maintenance contracts) must be updated annually.
- 7.4. Delivery orders issued under such IDIQ-type contracts must incorporate the most recent wage determination modification in the master contract at the time the delivery order is awarded.

8. TEXAS OPEN RECORDS ACT

- 8.1. Unless covered by an exception to mandatory disclosure under the Texas Public Information Act, Chapter 552, Texas Government Code, any and all documents submitted to the City of Austin become Public Records and are, therefore, subject to public disclosure.

END

Bidding Requirements, Contract Forms Conditions of the Contract

WAGE RATE DETERMINATION

Building Construction Type

County Name: TRAVIS

WAGE RATES AND PAYROLL REPORTING

Wages based on DOL Prevailing Wage Rate General Decision: TX20260271 05/18/2026 and City of Austin Ordinance #20160324-015 Resolution #20160324-020

DOL Rate column is for information only. The Total Minimum Wage Rate is derived from the Adjusted Wage Rate Required pursuant to City Ordinance plus the DOL Fringes and can be met using any combination of cash and non-cash qualified fringe benefits, provided the cash component is at least \$22.05/hour.

Classification	DOL Rate For info Only	Adjusted Wage Rate Required Pursuant to City Ordinance	DOL Fringes	Total Minimum Wage Rate Required
Asbestos Worker/Heat & Frost Insulator (Duct, Pipe, and Mechanical System Insulation)	\$ 29.50	\$ 29.50	\$ 8.79	\$ 38.29
Boilermaker	\$ 33.17	\$ 33.17	\$24.92	\$ 58.09
Bricklayer	\$ 20.07	\$ 22.05	\$ -	\$ 22.05
Carpenter	\$ 31.80	\$ 31.80	\$ 9.56	\$ 41.36
Carpenter (Acoustical Ceiling Installation only)	\$ 14.00	\$ 22.05	\$ -	\$ 22.05
Carpenter (Form Work Only)	\$ 15.62	\$ 22.05	\$ 0.05	\$ 22.10
Cement Mason/Concrete Finisher	\$ 15.71	\$ 22.05	\$ -	\$ 22.05
Drywall Finisher/Taper	\$ 17.06	\$ 22.05	\$ 4.43	\$ 26.48
Drywall Hanger and Metal Stud Installer	\$ 17.47	\$ 22.05	\$ 3.45	\$ 25.50
Electrical Installer (Sound and Communication Systems, Excluding Wiring)	\$ 18.00	\$ 22.05	\$ 2.30	\$ 24.35
** Electrician (Excludes Installation of Sound and Communication Systems)	\$ 36.50	\$ 36.50	\$10.69	\$ 47.19
***Elevator Mechanic	\$ 51.59	\$ 51.59	\$38.44	\$90.03
Floor Layer (Carpet)	\$ 21.88	\$ 22.05	\$ -	\$ 22.05
Glazier	\$ 12.83	\$ 22.05	\$ -	\$ 22.05
HVAC Mechanic (HVAC Unit Installation Only)	\$ 23.78	\$ 23.78	\$ 6.89	\$ 30.67
Ironworker, Ornamental	\$ 28.26	\$ 28.26	\$ 8.13	\$ 36.39
Ironworker, Reinforcing	\$ 12.27	\$ 22.05	\$ -	\$ 22.05
Ironworker, Structural	\$ 20.73	\$ 22.05	\$ 5.24	\$ 27.29
*Lead Paint or Asbestos Abatement Worker	*	\$ 22.05	\$ -	\$ 22.05
Laborer, Common or General	\$ 11.44	\$ 22.05	\$ -	\$ 22.05
Laborer, Mason Tender - Brick	\$ 12.22	\$ 22.05	\$ -	\$ 22.05
Laborer, Mason Tender - Cement/Concrete	\$ 11.85	\$ 22.05	\$ -	\$ 22.05
Laborer, Pipelayer	\$ 12.45	\$ 22.05	\$ -	\$ 22.05

Bidding Requirements, Contract Forms Conditions of the Contract

Laborer, Roof Tearoff	\$ 11.28	\$ 22.05	\$ -	\$ 22.05
Operator, Backhoe/Excavator/Trackhoe	\$ 19.43	\$ 22.05	\$ 3.49	\$ 25.54
Operator, Bobcat/Skid Steer/Skid Loader	\$ 13.00	\$ 22.05	\$ -	\$ 22.05
Operator, Bulldozer	\$ 14.00	\$ 22.05	\$ -	\$ 22.05
Operator, Drill	\$ 14.50	\$ 22.05	\$ -	\$ 22.05
Operator, Forklift	\$ 16.64	\$ 22.05	\$ 6.26	\$ 28.31
Operator, Grader/Blade	\$ 19.30	\$ 22.05	\$ -	\$ 22.05
Operator, Loader	\$ 14.00	\$ 22.05	\$ -	\$ 22.05
Operator, Mechanic	\$ 18.75	\$ 22.05	\$ 5.12	\$ 27.17
Operator, Paver (Asphalt, Aggregate, and Concrete)	\$ 16.03	\$ 22.05	\$ -	\$ 22.05
Operator, Roller	\$ 11.25	\$ 22.05	\$ -	\$ 22.05
Painter (Brush, Roller, and Spray, Excludes Drywall Finishing/Taping)	\$ 18.76	\$ 22.05	\$ 6.35	\$ 28.40
Pipefitter (Including HVAC Pipe Installation)	\$ 37.15	\$ 37.15	\$ 16.92	\$ 54.07
Plumber, Excludes HVAC Pipe Installation	\$ 23.57	\$ 23.57	\$ 6.37	\$ 29.94
Power Equipment Operator, Cranes	\$ 39.47	\$ 39.47	\$ 10.39	\$ 49.86
Roofer	\$ 12.00	\$ 22.05	\$ -	\$ 22.05
Sheet Metal Worker (Excluding HVAC Duct Installation)	\$ 34.01	\$ 34.01	\$ 16.10	\$ 50.11
Sheet Metal Worker (HVAC Duct Installation)	\$ 34.01	\$ 34.01	\$ 16.10	\$ 50.11
Sprinkler Fitter (Fire Sprinklers)	\$ 38.57	\$ 38.57	\$ 24.47	\$ 63.04
Tile Finisher	\$ 11.32	\$ 22.05	\$ -	\$ 22.05
Tile Setter	\$ 16.35	\$ 22.05	\$ -	\$ 22.05
Truck Driver, Dump Truck	\$ 12.39	\$ 22.05	\$ 1.18	\$ 23.23
Truck Driver, Flatbed Truck	\$ 19.65	\$ 22.05	\$ 8.57	\$ 30.62
Truck Driver, Semi-Trailer Truck	\$ 12.50	\$ 22.05	\$ -	\$ 22.05
Truck Driver, Water Truck	\$ 12.00	\$ 22.05	\$ 4.11	\$ 26.16
Waterproofers	\$ 16.30	\$ 22.05	\$ 0.06	\$ 22.11

See below for Additional Wage Information.

Note: *Lead Paint & Asbestos Abatement and Roofer, Metal Classifications have been added to this Prevailing Wage Rate Determination pursuant to a City of Austin Prevailing Wage Survey (trades absent from DOL).

1. ADDITIONAL TRADE INFORMATION

**Electricians - Including low voltage wiring for computers, fire/smoke alarms.

***Elevator Mechanics – 6% under 5 years based on regular hourly rate for all hours worked. 8% over 5 years based on regular hourly rate for all hours worked as Vacations Pay Credit. Also, must be paid for 8 holidays - New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Veterans Day.

Welders - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added upon the advance approval of City of Austin Contract Administration. CONTRACTOR shall submit to City of Austin Contract Administration for review the classification, a bona fide definition of work to be performed and a proposed wage with sample payrolls conforming to area practice **prior** to the start of the job for that type of work.

2. WAGES

The Total Wage may be met by any combination of cash wages and credible "bona fide" fringe benefits paid for by the employer. Overtime wages must be calculated using the Adjusted Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher. City of Austin Ordinance No. 20160324-015 Resolution #20160324-020 requires that construction workers are paid a Minimum Wage of at least \$22.05/hour. The cash portion of their compensation must meet or exceed this amount.

3. CREDITING FRINGE BENEFIT CONTRIBUTIONS TO MEET DBA/DBRA AND CITY OF AUSTIN REQUIREMENTS

The Davis-Bacon Act (and 29 CFR 5.23), list fringe benefits to be considered. Examples are:

- > Life Insurance
- > Health Insurance
- > Pension
- > Vacation
- > Holidays
- > Sick Leave

Note: The use of a truck is not a fringe benefit; a Thanksgiving turkey or Christmas bonus is not a fringe benefit. No credit may be taken for any benefit required by federal, state, or local law such as: workers compensation, unemployment compensation; or social security contributions.

Contributions to fringe benefit plans must be made regularly, e.g. daily, weekly, etc. They must be more frequent than quarterly. (See 29 CFR 5.5 (a)(1)(I)) A periodic bonus may not be counted as a fringe benefit.

4. ANNUALIZATION OF BENEFIT COSTS

If a firm provides an electrician with \$200 per month medical insurance, to calculate allowable fringe benefit credit contributions per hour, the formula $([\$200 \times 12 \text{ months}] \text{ divided by } 2080 \text{ hours} = \$1.15 \text{ per hour})$ should be used.

5. PROPER DESIGNATION OF TRADE

A work classification on the wage decision for each worker must be made based on the actual type of work he/she performed, and each worker must be paid no less than the wage rate on the wage decision for that classification **regardless** of his or her level of skill.

6. SPLIT CLASSIFICATION

If a firm has employees that perform work in more than one classification, it can pay the wage rates specified for each classification ONLY if it maintains accurate time records showing the amount of time spent in each classification. If accurate time records are not maintained, these employees must be paid the highest wage rate of all the classifications of work performed by each worker. Accurate time records tracking how many hours a worker performed the work of one trade and then switched to another trade must be accounted for on a daily basis and reflected on Employer Certified Payroll accordingly.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Workers in this classification may be entitled to a higher minimum wage under Executive Order 13658 (\$13.65). Please see the Note at the bottom of the wage determination for more information.

=====
Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

6.1 Union Rate Identifiers

A four-letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: **PLUM0198-005 07/01/2014**. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014. Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

6.2 Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non- union rates. Example: **SULA2012-007 5/13/2014**. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier. Survey wage rates are not updated and remain in effect until a new survey is conducted.

6.3 Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: **UAVG-OH-0010 08/29/2014**. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

Bidding Requirements, Contract Forms Conditions of the Contract

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

7. WAGE DETERMINATION APPEALS PROCESS

7.1 Has there been an initial decision in the matter? This can be:

- .1** A survey underlying a wage determination
- .2** An existing published wage determination
- .3** A Wage and Hour Division letter setting forth a position on a wage determination matter
- .4** A conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in **.2** and **.3** should be followed.

7.2 With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations via Email: BCWD-Office@dol.gov or Write to:

Branch of Construction Wage Determination Wage
and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

7.3 If the answer to the question in **.1** is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7) via Email: dba.reconsideration@dol.gov or Write to:

Wage and Hour Administrator
U.S. Department of Labor.
200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

7.3 If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

7.4 All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

WAGE RATES AND PAYROLL REPORTING

Section 00830HH

WAGE RATE DETERMINATION**Heavy and Highway**

County Name: TRAVIS

Wages based on DOL General Decisions: TX20260291 and TX20260007 01/02/2026 and City of Austin Ordinance #20160324-015 Resolution #20160324-020

DOL Rate column is for information only. The Total Minimum Wage Rate is derived from the Adjusted Wage Rate Required pursuant to City Ordinance and can be met using any combination of cash and non-cash qualified fringe benefits, provided the cash component is at least \$22.05/hour.

Classification	DOL Rate For info Only	Adjusted Wage Rate Required Pursuant to City Ordinance	Total Minimum Wage Rate Required
Agricultural Tractor Operator	\$19.14	\$22.05	\$22.05
Asphalt Distributor Operator	\$24.07	\$24.07	\$24.07
Asphalt Paving Machine Operator	\$22.12	\$22.12	\$22.12
Asphalt Raker	\$19.40	\$22.05	\$22.05
Boom Truck Operator	\$27.82	\$27.82	\$27.82
Broom or Sweeper Operator	\$18.09	\$22.05	\$22.05
Cement Mason/Concrete Finisher	\$20.61	\$22.05	\$22.05
Concrete Pavement Finishing Machine Operator	\$22.81	\$22.81	\$22.81
Concrete Saw Operator	\$25.97	\$25.97	\$25.97
Crane, Hydraulic, 80 tons or less	\$29.24	\$29.24	\$29.24
Crane, Lattice Boom, 80 tons or less	\$26.47	\$26.47	\$26.47
Crane, Lattice Boom, over 80 tons	\$28.87	\$28.87	\$28.87
Crawler Tractor	\$20.92	\$22.05	\$22.05
Directional Drilling Locator	\$21.39	\$22.05	\$22.05
Directional Drilling Operator	\$25.19	\$25.19	\$25.19
Electrician	\$30.54	\$30.54	\$30.54
Excavator 50,000 lbs. or less	\$22.93	\$22.93	\$22.93
Excavator, over 50,000 lbs.	\$22.90	\$22.90	\$22.90
Flagger	\$15.52	\$22.05	\$22.05
Form Builder/Form Setter - Paving & Curb	\$19.18	\$22.05	\$22.05
Form Builder/Form Setter – Structures	\$20.63	\$22.05	\$22.05
Foundation Drill Operator, Truck Mounted	\$24.28	\$24.28	\$24.28
Front End Loader Operator, 3CY or less	\$20.33	\$22.05	\$22.05
Front End Loader, over 3CY	\$20.20	\$22.05	\$22.05
Laborer, Common	\$17.52	\$22.05	\$22.05
Laborer, Utility	\$19.05	\$22.05	\$22.05
Loader/Backhoe Operator	\$20.32	\$22.05	\$22.05
Mechanic	\$26.15	\$26.15	\$26.15
Milling Machine	\$21.73	\$22.05	\$22.05
Motor Grader Operator - Fine Grade	\$26.56	\$26.56	\$26.56
Motor Grader Operator, Rough	\$22.95	\$22.95	\$22.95

Bidding Requirements, Contract Forms and Conditions of the Contract

Painter - Structures	\$23.76	\$23.76	\$23.76
Pavement Marking Machine Operator	\$22.00	\$22.05	\$22.05
Pipelayer	\$19.23	\$22.05	\$22.05
Reclaimer/Pulverizer	\$19.05	\$22.05	\$22.05
Reinforcing Steel Setter	\$22.46	\$22.46	\$22.46
Roller Operator, Asphalt	\$20.24	\$22.05	\$22.05
Roller Operator, Other	\$17.52	\$22.05	\$22.05
Scraper Operator	\$17.52	\$22.05	\$22.05
Servicer	\$23.75	\$23.75	\$23.75
Sign Erector	\$17.52	\$22.05	\$22.05
Spreader Box Operator	\$19.31	\$22.05	\$22.05
Structural Steel Worker	\$19.29	\$22.05	\$22.05
Traffic Signal Installer/Light Pole Worker	\$21.99	\$22.05	\$22.05
Trenching Machine Operator, Heavy	\$18.48	\$22.05	\$22.05
Truck Driver Tandem Axle Semi-Trailer	\$21.71	\$22.05	\$22.05
Truck Driver, Lowboy/Float	\$25.96	\$25.96	\$25.96
Truck Driver, Single Axle	\$19.70	\$22.05	\$22.05
Truck Driver, Off Road Hauler	\$17.52	\$22.05	\$22.05
Truck Driver, Single or Tandem Axle Dump	\$20.91	\$22.05	\$22.05
Welders	\$23.38	\$23.38	\$23.38
Work Zone Barricade Servicer	\$17.75	\$22.05	\$22.05

The Wage Compliance information detailed below was excerpted from DOL General Decisions TX20260291 and TX20230007 or other sources.

1. ADDITIONAL TRADE INFORMATION

Unlisted classifications needed for work not listed within the scope of the classifications listed may be added upon the advance approval of Contract Procurement. CONTRACTOR shall submit to City of Austin Contract Procurement the following: classification, a bona fide definition of work to be performed and a proposed wage with sample payrolls conforming to area practice **prior** to the start of the job for that type of work. Proposed trade may not be performed by any trade already listed.

2. WAGES

The Total Minimum Wage Rate may be met by any combination of cash wages and credible "bona fide" fringe benefits paid for by the employer. Overtime must be used in computing overtime pay. Wages must be calculated using the Total Minimum Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

City of Austin Ordinance No. 2016324-015 requires that construction workers are paid a minimum Wage of at least \$22.05/hour. The cash portion of their compensation must meet or exceed this amount.

3. PROPER DESIGNATION OF TRADE

A work classification from the Prevailing Wage Poster for each worker must be made based on the actual type of work he/she performed on the job. In summary the work performed, not the "title" determines the correct worker classification and wage. Each worker must be paid no less than the adjusted wage rate on the wage decision for that classification **regardless** of his/her level of skill (exclusive of a bona fide apprentice currently registered in a DOL approved

apprentice program - proof of individual registration must be supplied in advance to the City of Austin).

4. SPLIT CLASSIFICATION

If a firm has employees that perform work in more than one classification, it can pay the adjusted wage rates specified for each classification ONLY if it maintains accurate time records showing the amount of time spent in each classification. If accurate time records are not maintained, these employees must be paid the highest adjusted wage rate of all the classifications of work performed by each worker. Accurate time records tracking how many hours a worker performed the work of one trade and then switched to another trade must be accounted for on a daily basis and reflected on Employer Certified Payroll accordingly.

WELDERS – Receive rate prescribed for craft performing operation to which welding is incidental.

Workers in this classification may be entitled to a higher minimum wage under Executive Order 13658 (\$13.30). Please see the Note at the bottom of the wage determination for more information.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

5. WAGE DETERMINATION APPEALS PROCESS

5.1. Has there been an initial decision in the matter? This can be:

- .1 A survey underlying a wage determination
- .2 An existing published wage determination
- .3 A Wage and Hour Division letter setting forth a position on a wage determination matter
- .4 A conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in .2 and .3 should be followed.

5.2. With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations via Email: [BCWD- Office@dol.gov](mailto:BCWD-Office@dol.gov) or Write to:

Branch of Construction Wage Determination
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

5.3. If the answer to the question in .1 is yes, then an interested party (those affected by the

Bidding Requirements, Contract Forms and Conditions of the Contract

action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7) via Email: dba.reconsideration@dol.gov or Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

- 5.4.** If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

- 5.5.** All decisions by the Administrative Review Board are final.

END

CONSTRUCTION TRAINING PROGRAM REQUIREMENTS

Section 00840

The **City of Austin (OWNER) Construction Training Program (CTP)** is intended to train workers on City construction projects to develop a pool of qualified, ready-to-work skilled and semi-skilled construction workers and promote local economic opportunities.

CTP Requirements. The CTP is required for all City construction projects with a total solicitation value of \$500K and above as shown in **Chart A** below. The requirements will be established prior to solicitation, or during contract negotiations depending upon solicitation type. Exceptions to the trainee requirement can be considered based on the criteria outlined in **Chart B** below.

Chart A. CTP Trainee Requirements

Total Solicitation Value	Trainee Requirement	Trainees must be a Current Enrollee, or Graduate* of a COA Approved:
\$500K - \$2.5M	2	<ul style="list-style-type: none"> • Pipeline Organization or • DOL-Registered/Approved/Certified Apprenticeship, OJT, or Bilingual Training Program
Over \$2.5M - \$5M	4	<ul style="list-style-type: none"> • Pipeline Organization or • DOL-Registered/Approved/Certified Apprenticeship, OJT, or Bilingual Training Program
Over \$5M - \$10M	6	<ul style="list-style-type: none"> • Pipeline Organization or • DOL-Registered/Approved/Certified Apprenticeship, OJT, or Bilingual Training Program
Over \$10M	15% of Total Workforce or a minimum of 10, whichever is greater	<ul style="list-style-type: none"> • DOL-Registered/Certified Apprenticeship or Bilingual Training Program for Vertical (BC) • DOL-Approved/Certified OJT or Bilingual Training Program for Horizontal (HH) Projects

* Graduates cannot satisfy more than 50% of the trainee requirement

Chart B. CTP Criteria for Consideration of Exceptions to Trainee Requirements

1. Material Cost vs. Labor Cost
2. Scope of Work
3. Project Duration and Schedule
4. Availability of Training Opportunities
5. Other Circumstances Presented

<p>1. DEFINITIONS</p> <p>1.1 Apprentice – a worker currently enrolled in a DOL-Registered Apprenticeship Program.</p> <p>1.2 Apprentice Graduate – a graduate of a DOL-Registered Apprenticeship or DOL-Certified Bilingual Training Program.</p> <p>1.3 Apprenticeship Program – a training program used to meet CTP requirements that is registered with the DOL conforming to 29 CFR Part 30.</p>
--

CONSTRUCTION TRAINING PROGRAM REQUIREMENTS

Section 00840

1.4 DOL – The Department of Labor is cabinet-level department of the U.S. Federal Government whose mission is to foster, promote, and develop the welfare of the wage earners, job seekers, and retirees of the United States; improve working conditions; advance opportunities for profitable employment; and assure work-related benefits and rights.

1.5 Horizontal Construction/Heavy & Highway (HH) Project – civil construction, such as roads, bridges, and utilities.

1.6 Journeyman – a fully-trained tradesperson, who may or may not have completed apprenticeship training through a DOL-Registered Apprenticeship Program.

1.7 Labor Forecast – a template provided by the OWNER for projects with a total solicitation value above \$10M and used by the CONTRACTOR to forecast the project’s workforce, including those of all subcontractors. The Labor Forecast is submitted with the required Training Plan and is used by the OWNER to determine the 15% trainee requirement.

1.8 On-The-Job-Training (OJT) Program – a training program used to meet CTP requirements that is registered by the DOL conforming to 29 CFR Part 5.16.

1.9 Pipeline Organizations – These organizations are approved by the OWNER to meet CTP requirements for projects with a total solicitation value of \$10M or below and can provide upskilled training to a contractor’s current workforce, or staff augmentation as needed.

1.10 Procurement Programs Division (PPD) – The City of Austin’s Division responsible for administration of the Construction Training Program.

1.11 Trainee – individuals enrolled in, or graduate of, a DOL-Registered Apprenticeship Program, a DOL-Approved OJT Program, DOL- Certified Bilingual Training Program, or OWNER approved Pipeline Organization.

1.12 Training Plan – provided by the OWNER and used by the CONTRACTOR to identify how they intend to meet the CTP requirements. This is required to be reviewed and approved by the OWNER prior to issuance of Notice to Proceed.

1.13 Training Report – provided by the OWNER and used by the CONTRACTOR to document the hours worked for each trainee. This is required to be submitted monthly to be reviewed for compliance and approved by the OWNER until substantial completion is met.

1.14 Upskill Employee – a current employee of a contractor’s workforce enrolled in training at an OWNER approved Pipeline Organization for the intent of expanding their existing skill set.

1.15 Vertical Construction/Building Construction (BC) Project – a project which includes significant vertical structural components or buildings requiring building construction trades.

CONSTRUCTION TRAINING PROGRAM REQUIREMENTS

Section 00840

1.16 **Workforce** – the number of workers to be employed on the project to include those employed by subcontractors.

2. TRAINING REQUIREMENTS

2.1 For projects with a combined Vertical Construction/Building Construction (BC) (as defined by Section 00830BC) and a Horizontal Construction/Heavy & Highway (HH) (as defined by Section 00830HH) a total solicitation value above \$10M, **15% of the project's workforce, or a minimum of 10 trainees, whichever is greater**, must be current enrollees or graduates of a DOL-Registered Apprenticeship Program, DOL-Approved OJT, or DOL-Certified Bilingual Training Program. The required number of trainees are determined by a labor forecast, and graduates may not satisfy more than half of the training requirement.

2.2 Trainees enrolled in a DOL-Registered Apprenticeship Program, DOL-Approved OJT Program, or DOL-Certified Bilingual Training Program must at least be paid the prevailing wage rate as specified in the DOL Program for that trade but may NOT be paid less than the City's Approved Minimum Wage Rate.

3. CONTRACTOR'S RESPONSIBILITIES

3.1 The CONTRACTOR shall provide a Training Plan and a Labor Forecast to the OWNER for review and approval within **14 business days** of the contract award by council and will not be granted Notice to Proceed until the Training Plan is approved by the OWNER.

3.2 The CONTRACTOR shall submit the first Training Report to OWNER no later than 30 calendar days after issuance of Notice to Proceed and then monthly thereafter until substantial completion on the project is met. If a Trainee is no longer working on the project, the CONTRACTOR is required to make a reasonable effort to replace the Trainee within 30 calendar days.

3.3 The CONTRACTOR shall submit to OWNER proof of Trainee enrollment/graduation, from a DOL-Registered Apprenticeship, DOL-Approved OJT Program or DOL-Certified Bilingual Training Program no later than 30 calendar days after issuance of Notice to Proceed.

3.4 Additional training outside of what is provided by the DOL-Registered Apprenticeship Program, DOL-Approved OJT Program, or DOL-Certified Bilingual Training Program is not required.

3.5 If a subcontractor is used, the CONTRACTOR shall determine if the requirements of the CTP will be assumed by the subcontractor; however, the CONTRACTOR retains responsibility for submitting all required documentation as outlined in this section of the contract.

3.6 The CONTRACTOR is required to contact OWNER approved DOL-Approved OJT Program or DOL-Certified Bilingual Training Program to coordinate training opportunities from the lists provided on the [COA Vendor Services Website](#).

4. COMPLIANCE

4.1 To meet CTP requirements, the CONTRACTOR shall submit the required documentation as outlined above in section 3.

4.2 If there are fewer trainees employed on the project than specified in the OWNER approved Training Plan, the CONTRACTOR must submit evidence of Reasonable Efforts to Comply with the CTP requirements including email of training opportunities/recruitment efforts, or additional supporting documentation as applicable.

4.3 A lack of demonstrated Reasonable Efforts to Comply with the CTP will be reflected in the Contractor's Performance Evaluation and may impact future business opportunities with the City of Austin.

Notice to Bidders: This form, Addendum, Section 00900, is included for your information only. If an actual Addendum is issued for this project, the format shown below will be used. Additionally, issued addenda will be bound at the beginning of the Project Manual following the Table of Contents at the time of contract execution.

ADDENDUM NO. _____

Date _____, _____

City of Austin

Project Name: Hornsby Bend Headworks Improvements

C.I.P. No. 3164.075 IFB No.: _____

This Addendum forms a part of the Contract and corrects or modifies original Bid Documents, issued on _____, _____. **Acknowledge receipt of this addendum in space provided on bid form.** Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

B. Drawing Revisions:

This addendum consists of _____ page(s)/sheet(s).

Approved by OWNER

Approved by ENGINEER/ARCHITECT (as applicable per license requirements)

END

The Work of this Contract includes sustainability requirements as shown in the Division 1 Sections 01352 and all other applicable specification sections. It is the intent of the Owner to work in partnership with the Contractor in implementing sustainable construction practices to the greatest extent possible.

PART 1 - GENERAL

1.1 Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

1.2 DESCRIPTION OF WORK

1.21 Scope of Work

A. This section describes the Project in general and provides an overview of the extent of the Work to be performed by the CONTRACTOR. Detailed requirements and extent of Work is stated in the applicable Specification Sections and shown on the Drawings. CONTRACTOR shall, except as otherwise specifically stated herein or in any applicable part of these Contract Documents, provide and pay for all labor, materials, equipment, tools, construction equipment, and other facilities and services necessary for proper execution, testing, and completion of the Work.

B. Any part or item of the Work which is reasonably implied or normally required to make the installation satisfactorily operable shall be performed by the CONTRACTOR and the expense thereof shall be included in the applicable unit prices or lump sum prices bid for the Work. It is the intent of these Specifications to provide the OWNER with the complete system. All miscellaneous appurtenances and other items of Work that are incidental to meeting the intent of the Specifications shall be considered as having been included in the applicable unit prices or lump sum prices bid for the Work even though these appurtenances and items may not be specifically called for in the Bid Documents.

C. The Work shall include furnishing all tools, labor, materials, equipment, and miscellaneous items necessary for the complete construction of the following improvements:

- Demolition of the existing headworks facility structure and installation of a new covered structure adjacent to the Flow Equalization Basin (FEB).
- Installation of two (2) new multi-rake bar screens, washer/compactors, a dumpster, and a bypass channel to replace the existing headworks facility equipment.
- Modification of existing gravity belt thickeners.
- Installation of magnetic flow meters and air release valves on all influent lines, located in two separate cast in place vaults.
- Installation of a biotrickling filter to treat the headworks' foul air stream.
- Installation of a receiving station with a quick connect for sludge delivered by AW trucks and secondary containment.
- Installation of a new electrical room inside the CoGen Building to house new Motor Control Centers (MCCs) and Programmable Logic Controller (PLC).
- Installation of a new electrical room inside the FEB Building to house new MCCs, PLCs, transformers, and control panels.

- Installation of a dedicated control room inside the FEB building to house an HMI workstation, PLC, network rack and security rack.
- Replacement of the switchgear on the exterior of the CoGen Building.
- Installation of new duct bank from the CoGen Building to the FEB Building.
- Replacement of existing electrical equipment in the FEB Building, including MCCs and a PLC in the converted boiler room and expanded control room, respectively.
- Improvements to the HVAC systems for the headworks facility, CoGen Building, and FEB Building.
- Improvements to the security system for the CoGen Building and FEB Building.

1.22 Location of Project

A. The Project is located at Hornsby Bend Biosolids Management Plant, 2210 FM 973, Austin, Texas, 78725. The project location/route is shown on the Drawings.

1.23 Contractor's Responsibilities

A. Execute all Work, including excavation, installing pipe, backfill, miscellaneous concrete and testing. The Work of this Contract is specified in the City of Austin Standard Specifications, Special Provisions and Special Specifications listed in the Table of Contents.

B. Secure all construction-related permits, other than those provided by OWNER as described in paragraph 6.6 of Section 00810, Supplemental General Conditions, and pay for the same.

C. Arrange for the necessary temporary water and electric service and pay for these services and all water and electricity consumed during the construction Work.

D. Provide adequate temporary sanitary facilities.

1.24 Easements and Rights-Of-Way

CONTRACTOR shall confine his construction operations within the limits indicated on the Drawings, and shall use due care in placing construction tools, equipment, excavated materials, and pipeline materials and supplies so as to cause the least possible damage to property and interference with traffic. If the CONTRACTOR requires additional easement for his operations, the CONTRACTOR is solely responsible for acquisition and maintenance of the easement. No additional compensation will be provided by the OWNER.

A. Easements - Easements across private property are indicated on the Drawings. CONTRACTOR shall set stakes to mark the boundaries of construction easement across private property. The stakes shall be protected and maintained until completion of construction and cleanup.

B. Rights-of-Way - Permits for Work in rights-of-way shall be obtained by the CONTRACTOR. All Work performed and all operations of CONTRACTOR, his employees, or subcontractors, within the limits of railroad and highway rights-of-way, shall be in conformity with the requirements and be under the control (through OWNER) of the railroad or highway authority owning, or having jurisdiction over and control of, the right-of-way in each case.

1.25 Operation of Existing Facilities

Existing water and wastewater facilities shall be kept in continuous operation throughout the construction period. No interruption will be permitted which adversely affects the degree of service provided. Provided permission is obtained from OWNER in advance, portions of the existing facilities may be taken out of service for short periods corresponding with periods of minimum service demands.

CONTRACTOR shall provide temporary facilities and make temporary modifications as necessary to keep the existing facilities in operation during the construction period.

1.26 Connections to Existing Facilities

Unless otherwise specified or indicated, CONTRACTOR shall make all necessary connections to existing facilities including structures, drain lines, and utilities. In each case, CONTRACTOR shall receive permission from OWNER or the owning utility prior to undertaking connections. CONTRACTOR shall protect facilities against deleterious substances and damage.

Connections to existing facilities which are in service shall be thoroughly planned in advance, and all required equipment, materials and labor shall be on hand at the time of undertaking the connection. Work shall proceed continuously (around the clock) if necessary to complete connections in the minimum time. Operation of valves or other appurtenances on existing utilities, when required, shall be by or under the direct supervision of the owning utility.

1.27 Unfavorable Construction Conditions

No portion of the Work shall be constructed under conditions which adversely affect the quality or efficiency thereof, unless special means or precautions are taken by CONTRACTOR to perform the Work in a proper and satisfactory manner.

END

SECTION 01015

CONSTRUCTION COORDINATION AND SEQUENCING

PART 1 GENERAL

1.01 SCOPE

- A. The Hornsby Bend Biosolids Management Plant (BMP) Headworks is a critical component of the Hornsby Bend BMP treatment process. Any disruption to the existing Headworks' ability to screen sludge will negatively impact the entire plant process. It is imperative that this project remain on schedule and select operations discussed herein remain in operation during construction.
- B. The OWNER and ENGINEER have attempted herein to define operational constraints, provide parameters to consider in the CONTRACTOR's baseline progress schedule, and to provide the CONTRACTOR with sufficient information to best ensure completion in a structured progression to allow sufficient time to complete construction activities.
- C. The OWNER's continuous and unimpeded operation of the plant is of higher priority than construction activities. Schedules of connections, renovations and modifications shall be submitted to the OWNER for approval, and all such items shall be coordinated throughout the entire construction period. The OWNER reserves the right to halt construction and /or instruct the CONTRACTOR to place facilities out of service for construction back into service if necessary to maintain regulatory compliance.
- D. The CONTRACTOR shall not operate any valves, gates or equipment unless directed to do so by the OWNER. The CONTRACTOR shall schedule all valve or gate closures with the OWNER. Existing valves and gates should be expected to not seal completely or properly. The CONTRACTOR shall provide any temporary containment required to perform the work, at no additional cost to the OWNER.
- E. The CONTRACTOR shall not interrupt or remove power or communication from any facility or equipment unless directed to do so by the OWNER. The CONTRACTOR shall schedule all outages and interruptions with the OWNER. Existing switchgear, switchboards, motor control centers, panelboards, overcurrent protective devices, and control panels should be expected to fail and require the CONTRACTOR'S immediate action to return to service.
- F. The CONTRACTOR's proposed construction sequencing plan shall be integral to their Baseline Schedule to the OWNER and ENGINEER to be submitted in accordance with Section 00700, paragraph 2.4.2.1.

1.02 RELATED WORK AND SPECIFICATIONS

- A. Section 00020 – Invitation for Bids
- B. Section 00700 – General Provisions
- C. Section 00810 – Supplemental Conditions

- D. Section 00900 – Addenda
- E. Section 01010 – Summary of Work
- F. Section 01300 – Submittals
- G. Section 01650 – General Requirements for Equipment Commissioning Testing & Startup
- H. Section 16010 – Electrical General Provisions
- I. Section 16030 – Selective Demolition for Electrical

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 SHUTDOWN PROCEDURES

- A. Regardless of the requirements outlined herein, shutdown of any process, including power and control systems, at the plant requires close coordination and planning with the OWNER and plant superintendent. The CONTRACTOR shall comply with the operational constraints of the plant during the shutdowns.
- B. This work at the Hornsby Bend BMP Headworks may be concurrent with other work at the plant. Plant outages at Hornsby Bend BMP or other facilities will be coordinated by the OWNER and ENGINEER. In case of conflicts in scheduling work requiring shutdowns or partial outages at multiple facilities, the OWNER will determine which treatment process shutdowns will be delayed.
- C. The CONTRACTOR shall perform all work activities to accommodate normal plant operations with only pre-planned and OWNER approved process interruptions necessary for process unit isolation, process piping, and electrical connections.
- D. The Plant process cannot be interrupted for an extended period of time during any portion of this project. The Headworks process can be offline for no longer than eight (8) hours, once every two (2) weeks (fourteen calendar days). Such instances shall be coordinated between the CONTRACTOR and the OWNER and shall be referred to as "shutdown(s)" herein.
- E. The CONTRACTOR shall notify the OWNER in writing at least twenty-one (21) days in advance and again three (3) days prior to each shutdown, and coordinate with the OWNER the specific items to be isolated and the duration for each. The CONTRACTOR shall obtain written approval from the OWNER prior to each shutdown. Emergency work may be accomplished without obtaining prior permission; however, the CONTRACTOR shall notify onsite operators, OWNER and ENGINEER immediately of any emergencies.
- F. At least twenty-one (21) calendar days prior to planned shutdowns, the CONTRACTOR shall submit to the OWNER for review and approval:
 - 1. A detailed description of the work to be performed.

2. A schedule outlining the duration of each scheduled task and total duration of the shutdown, not to exceed eight (8) hours. Shutdowns shall be scheduled for Tuesday, Wednesday, or Thursday and shall not be scheduled the same week as a City-observed holiday. Weather conditions shall be taken into consideration when scheduling shutdowns.
 3. A list of all equipment and materials required to complete each task.
 4. Documentation that all manpower, equipment and materials necessary to complete each task are available on site.
 5. Emergency plan to take place should an emergency occur during the scheduled duration.
 6. Backup plan, in case during the shutdown the work cannot be completed as planned.
- G. Depending on duration of outage and time of year, AW may need to coordinate on the City's concurrence process. Contractor shall provide supporting documentation as necessary for plant engineer and operators to sufficiently execute the concurrence process.
- H. A minimum of two (2) working days prior to the scheduled shutdown, a special coordination meeting will be held with the CONTRACTOR, OWNER, ENGINEER, Subcontractors and other parties as requested by the OWNER or ENGINEER to review procedures.
- I. Prior to a shutdown and beginning work, the Contractor shall have on-site all materials, equipment and personnel necessary to complete the work in the time scheduled. The CONTRACTOR shall also perform all tasks to the most complete state possible prior to shutdowns.
- J. The OWNER's plant manager and/or their designee shall be responsible for directing shutdown operations. The CONTRACTOR shall provide any labor assistance necessary to complete shutdown operations including but not limited to:
1. Operating gates and valves (under direction and supervision of the OWNER's plant operating staff).
 2. Removing sludge, scale, mud and debris from pipelines. Materials and fluids removed from pipelines shall be taken offsite and disposed according to TCEQ regulations and shall be the sole responsibility of the CONTRACTOR.
 3. Containing, pumping and conveying water that may leak through existing gates and valves. Water shall be pumped and conveyed to the Thickener Complex Lift Station.
 4. Restoring power and controls that may have been inadvertently removed from facilities and equipment during construction.
- K. In the case of failure of the CONTRACTOR to perform the work in the planned shutdown time, the CONTRACTOR may be liable for payment of costs associated with the interruption of the wastewater treatment process.

3.02 ANTICIPATED SHUTDOWNS

- A. The ENGINEER has identified the following construction activities that will require complete shutdown or partial shutdowns of the Headworks and other processes:
 - 1. Complete Process Shutdowns
 - a. MS-1 Electrical preventative maintenance and manufacturer measurement for equipment modification
 - b. Modification of MS-1 to provide feeders for new CoGen Switchgear
 - c. Connection of MS-1 to new service disconnect
 - d. Cable connection from new CoGen Switchgear to existing Govalle and SAR MCC feeders within a junction box.
 - e. Load transfer for FEB sludge transfer pumps, tank mixer, basement sump pumps, and grinder as noted in 3.04.
 - f. Replacement of FEB PLC.
 - 2. Isolated Equipment Shutdowns
 - a. Transfer of power serving existing loads from existing power distribution equipment to new power distribution equipment.

3.03 SPECIFIC CONSTRUCTION ACTIVITIES SEQUENCING

The following sequences are for information only and are intended to represent a general sequence of construction of major activities in which the Work can proceed. The sequences provided below are not intended to represent a complete work plan. The CONTRACTOR is not obligated to follow the sequences as set forth below; however, the plan submitted shall conform to the construction constraints specified herein. All partial shutdowns or diversions must be previously approved by the OWNER and ENGINEER.

- A. CONTRACTOR to keep the existing facilities operational during construction of the new facilities. CONTRACTOR shall not disconnect process-mechanical or electrical components until new facilities are fully commissioned.
- B. The temporary thickening system shall be modified prior to construction of the new headworks. CONTRACTOR shall coordinate with the Owner regarding sequencing of modification of temporary thickening system. Owner will confirm items to be salvaged and returned to Owner. Refer to Section 01020 Allowances.
- C. Electrical Sequencing
 - 1. Set in place all new electrical infrastructure required for the proposed power distribution system, including all switchgear, motor control centers, junction boxes, conduits, cables, and conductors to new and existing loads to remain (DO NOT TERMINATE).
 - a. CoGen Building Electrical Sequencing
 - (i) Install a new service disconnect on the outside of the CoGen building
 - (ii) Install new CoGen switchgear within building
 - (iii) Install cable and conduit between service disconnect and CoGen switchgear
 - (iv) Install conduit between MS-1 and new service disconnect

- (v) Install conduit between new CoGen switchgear and old CoGen switchgear
 - (vi) Coordinate with Austin Energy to de-energize utility transformer
 - (vii) Install cable between MS-1 and new service disconnect
 - (viii) Install cable between new Cogen switchgear and existing CoGen switchgear
- b. FEB Building Electrical Sequencing
 - (i) Build the new electrical room and install new MCCs while the existing FEB power and controls remains operational
 - (ii) Install conduit between existing motors and new FEB MCCs
2. Test proposed distribution equipment.
 3. Transfer loads from existing distribution equipment to proposed distribution equipment.
 - a. Both sets of equipment (new and existing) are to remain energized and loads are to be transferred one at a time. Refer to electrical load transfer constraints as outlined in section 3.04.
 - b. Transferring existing loads from the existing to the new power distribution system shall be limited to four (4) hours per load.
 - c. Note that temporary controls may be required and/or control system modifications will be required for transfer of loads from existing MCC's to new MCCs.
 4. Splice existing feeds to GoValle and SAR Complexes using existing CoGen switchgear as junction box.
 5. Demolish existing electrical equipment per the constraints noted herein.
- D. Instrumentation and Control Sequencing: LPU-1A and LPU-5 Replacement
1. Coordinate with plant operations staff, City SCADA, City IT department, and City SCADA Programming Engineer to develop replacement plan.
 2. Provide replacement plan submittal to Austin Water and Engineer for review and approval for both replacements:
 - a. LPU-1A replacement with HBD-FEB-CONTROLPANEL-01
 - b. LPU-5 replacement with HBD-COGEN-CONTROLPANEL-01
 3. Before replacement work commences, ensure all connected process loads can be manually/locally operated with the associated unit offline.
 - a. LPU-1A may only be down for one (1) week.
 4. Coordinate with Austin Water SCADA and City IT department for any network impact during the replacement work.
 5. Trace each panel field wire and identify each wire function. Provide City standard wire tag label for each reused wire. This includes network cable, both fiber optic and CAT6 cable.
 6. Install new panels in place. Connect all network cables and test. Make sure there is no issue on network communication for both SCADA network and City network.
 7. Test each field wire and equipment function with City SCADA Programming Engineer on the PLC program. Document each test result and submit test report to the Owner.
 8. Disconnect all field wires. Remove the existing panel.

9. Schedule the Operational Readiness Test.
10. Update panel wiring on the panel drawing. Provide O&M submittal.
11. The total of panel replacement shall be completed in three (3) days.

3.04 CONSTRUCTION CONSTRAINTS

A. General

1. The CONTRACTOR shall not disconnect power from any sources unless directed to do so by the OWNER.
2. The CONTRACTOR shall maintain access to all plant facilities at all times for plant personnel, chemical delivery and emergency vehicles.
3. The CONTRACTOR shall provide safe, continuous access to process control equipment for plant operations personnel.
4. For removal and replacement of equipment or appurtenances during construction, all replacement equipment and appurtenances must be on site and prepared for installation prior to any demolition activities.
5. Prior to demolition activities, CONTRACTOR shall confirm items to be salvaged and returned to Owner.
6. The CONTRACTOR shall maintain access to plant roads and entrances.
7. The CONTRACTOR shall coordinate with the Owner if additional staging or storage area is necessary outside of the limits shown on the Drawings.
8. The CONTRACTOR shall maintain adequate drainage for the duration of the project. Temporary drainage may be required after the demolition of the existing storm inlet and before the construction of the proposed inlet and storm drain.

B. Existing Subgrade Utilities

1. The CONTRACTOR is responsible for verifying all existing electrical/mechanical/etc. underground utilities/systems whether shown in the Drawings or not at no additional cost to the Owner. The information shown in the Drawings shall not relieve the CONTRACTOR of the responsibility of confirming or finding the existing underground utilities/systems.
2. The CONTRACTOR must exercise extreme care as there are not reliable as-built records identifying the routing of underground utilities/systems and there was minimal subsurface investigation performed before bid.
3. The CONTRACTOR shall be responsible for providing all necessary materials and labor to adequately support existing underground utilities/systems exposed during excavation/construction activities in a manner that will maintain the integrity of the exposed underground utility/system and prevent possible damage to and/or interruption of the utility/system and/or facility/plant operation at no additional cost to the Owner.

C. Contaminated Soils

1. CONTRACTOR shall monitor excavated material and groundwater for contamination and notify owner immediately if contamination is detected. If CONTRACTOR or Owner's Representative detects contamination in excavated material, work in the area shall stop and CONTRACTOR and OWNER shall coordinate per the requirements of Section 01901 – Contaminated Soil and Groundwater.

D. Utilities

1. Provide advance notice to and utilize the services of Texas Excavation Safety System (Texas 811) for location and marking of underground utilities operated by utility agencies other than the OWNER.
2. Maintain electrical, telephone, water, gas, sanitary facilities and other utilities within the existing facility in service. Provide temporary utilities when necessary.
3. New yard utilities were designed using existing facility drawings.
 - a. Field verification of utilities locations was not performed during design.
 - b. Services crossed or located nearby new yard utilities may require relocation and possible shutdowns.
 - c. Pipe alignments as indicated on the Drawings.

E. Influent Pipe Tie-In

1. The CONTRACTOR shall coordinate with the owner for the tie-in to the existing influent piping. If the existing influent piping must remain active, the CONTRACTOR is to provide temporary bypass piping to the existing headworks during the construction of the proposed influent piping until the new Headworks is operational at no additional cost to the Owner.
2. The existing headworks and associated influent pipes to remain in service until the Owner's acceptance of the proposed/new headworks and its influent piping. The CONTRACTOR shall provide appropriate bypassing pumping or other Owner/Engineer accepted means to accomplish the above at no additional cost to the Owner.

F. Flow Equalization Basin (FEB) Penetrations

1. For construction of new penetrations and infill of existing penetrations, CONTRACTOR shall exercise extreme caution in the FEB.
2. CONTRACTOR shall provide ventilation during work requiring occupation of the FEB.
3. CONTRACTOR shall provide a means to keep construction materials from falling into FEB.
4. CONTRACTOR shall coordinate with plant to lower FEB working level as needed to complete the work. CONTRACTOR may choose to bypass the FEB to perform the work (at no additional cost to the Owner).

G. Electrical Load Transfer (Existing Equipment to Remain)

1. Provide adequate lighting in all areas during load transfer.
2. Provide adequate heating in all areas during load transfer.
3. CoGen air compressors can only be taken out of service one at a time.
4. FEB digester pumps can only be taken out of service one at a time.
5. FEB sludge transfer pumps, tank mixer, basement sump pumps, and grinder shall have load transfers completed at the same time during a planned process shutdown as noted above.
6. FEB odor control blowers can only be taken out of service one at a time.
 - a. FEB supply fans, exhaust fans, and condensing units cannot be taken out of service while either of the odor control blowers are out of service.

3.05 MEASUREMENT AND PAYMENT

- A. All work items installed, provided, constructed, etc. with the exception of the unit price items listed in Section 00300L – Bid Form (Lump Sum), shall not be paid for separately but shall be considered subsidiary to the lump sum bid price for the Project. The cost of all work materials, labor, overhead, insurance, equipment, etc. necessary to finish the work complete in place shall be included in the lump sum bid price for the project.

END OF SECTION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

Applicable portions of the Project Manual including but not limited to the Drawings and Specifications.

1.2 SUMMARY

This Section includes administrative and procedural requirements governing allowances.

Definition:

Allowances. "Allowance" is defined as "a not-to-be-exceeded amount", either individually or in the aggregate, which is established between the Owner and the CONTRACTOR as part of the bid documents when the precise scope of a particular line item(s) has not been defined to a level which is adequate for the CONTRACTOR to provide a definitive line item pricing for that particular scope of Work.

1.3 COORDINATION

At the earliest practical date after award of the Contract, the Contractor shall advise Owner of the date when final selection and purchase of each product or Work described by an Allowance must be completed to avoid delaying the Work.

Coordinate Allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.4 PROCEDURES

Submit cost proposals for purchase of products or work included in Allowances in the form specified for Change Orders.

Coordinate and process submittals for Allowance items in accordance with Section 01300 as for other portions of the Work.

The use of any Allowances by the CONTRACTOR will be subject to the Owner's sole approval and it is the Owner's intent to minimize the use of Allowances to the fullest extent possible.

For any Allowances which the Owner allows the CONTRACTOR to use, the following rules shall apply: (i) the Allowance shall cover the cost to the CONTRACTOR of the cost of Work, as defined in the Agreement and the CONTRACTOR's portion of overhead and profit associated with the stated Allowance; and (iii) upon completion of the portion of the Work subject to an Allowance, the Contract Amount for that portion of the Work will be adjusted based upon the approved actual Cost of the Work, including the proportionate overhead and profit, provided however that the total amount of payments under the Allowances will not exceed the approved aggregate amount of the Allowances.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.1 SCHEDULE OF ALLOWANCES

Allowance No. 1 – Soil/Groundwater Contamination or Unforeseen Yard Utilities \$50,000.00

Allowance for the cost to address contaminated soil and /or groundwater encountered during construction per the requirements of Section 01901 – Contaminated Soil and Groundwater. Allowance may also be used for unforeseen yard utilities (pipe, ductbank, etc.) throughout the project area. Payment to the CONTRACTOR for this allowance item is contingent upon the OWNER’s preference when the existing features are unearthed. The total allowance has been included in the contract to cover such changes as may be necessary in the field. Any remainder shall not be awarded to the CONTRACTOR.

Allowance No. 2 – Portable Generators / Docking Station \$300,000.00

Allowance for the cost to provide two (2) 500kW Portable Generators for plant usage. Generators shall be trailer-mounted diesel units with sound attenuated enclosures. Coordinate with Owner on make/model. Allowance includes funds to coordinate generator connection to the docking station.

Allowance No. 3 – CoGen Building Hoist Replacement \$20,000.00

Allowance for the cost to replace the hoist in the CoGen Building.

Allowance No. 4 – Security System \$300,000.00

Allowance for security system required for this project as identified by the Owner to the Contractor after the Contractor’s bid award. The security system shall be furnished and installed by a security system subcontractor designated by the Owner. The total allowance has been included in the contract to cover such changes as may be necessary in the field. Any remainder shall not be awarded to the contractor.

Allowance No. 5 – Site Access (Security) \$5,000.00

Allowance for procurement of permanent security badges as specified in Section 00819 – Security Requirements. The total allowance has been included in the contract to cover such changes as may be necessary in the field. Any remainder shall not be awarded to the contractor.

Allowance No. 6 – MS-1 Maintenance \$20,000.00

Allowance for assessment and preventative maintenance of MS-1 per section 16441.

Allowance No. 7 – Section 17600 PLC Training \$50,000.00

Allowance for training as noted in section 17600.

Allowance No. 8 – Section 17620 Ethernet Switches \$20,000.00

Allowance for ethernet switches as noted in section 17600.

Allowance No. 9 – Section 17620 Communication Equipment Training \$50,000.00

Allowance for training as noted in section 17600.

Allowance No. 10 – Section 17640 Workstations & Computers **\$15,000.00**
Allowance for workstations and programming computers as noted in section 17640.

Allowance No. 11 – Delivery Signage **\$5,000.00**
Allowance for providing permanent signage for directing delivery traffic. Contractor shall coordinate with client regarding type of signs and number of signs.

Allowance No. 12 – FEB LD Panels **\$50,000.00**
Allowance for conversion of panels LD1, LD2, and LD3 into junction boxes per the requirements of sheet E-11, including investigation of existing circuits, confirmation of new panelboard size and breaker sizes for new panelboard to refeed LD1, LD2, and LD3 loads, and repowering existing 120 V loads.

Allowance No. 13 – Modify Temporary Thickening System **\$1,000,000.00**
Allowance for the modification of the temporary thickening system including removal and hauling of concrete.

3.2 PAYMENT

Once the cost proposal for the Allowance has been incorporated into the Contract by Change Order, Payment for the Allowance will be based upon either the unit prices or a schedule of values provided with the proposal and incorporated in the Change Order.

END

PART 1 GENERAL

1.01 ADMINISTRATIVE SUBMITTALS

- A. Schedule of Values: The Contractor shall submit a Schedule of Values on their standard form that accurately reflects the cost of Work for each item or task on the progress schedule. The Schedule of Values shall include any training, allowances, contingencies, or overhead costs, and list separately such items as bonds and insurance premiums, mobilization, demobilization and contract closeout, facility startup, and other appropriate Division 1 activities.
- B. Schedule of Estimated Progress Payments
 - 1. Submit with initially acceptable schedule of values.
 - 2. Submit adjustments thereto with Application for Payment.
- C. Application for Payment: In accordance with the General Conditions and any modifications thereto as specified herein.
- D. Final Application for Payment: As specified herein.

1.02 SCHEDULE OF VALUES

- A. Reference the General Conditions and Supplemental General Conditions for requirements.
- B. Format
 - 1. Prepare a separate schedule of values for each schedule of Work under the Agreement.
 - 2. Schedule Of Values Requirements:
 - a. Provide separate values for each item or task on the progress schedule.
 - b. An unbalanced or front-end loaded schedule will not be acceptable.
 - c. Items in the schedule of values are to accurately reflect the cost of work.
 - d. List separately such items as Bonds and insurance premiums, mobilization, demobilization and contract closeout, facility startup, and other appropriate Division 1 activities.
 - e. Provide a separate column and provide the plan set position/location ID/Name/TAG# for every major item that is listed on the plans. All these items should be included separately in the schedule of values for future Asset Management Tracking
 - f. Release of retainage will be conditioned upon the receipt and approval of items listed in Division 1 Section 01730 Operation and Maintenance Data. The Contract will be **paid to no more than 70%** upon receipt of preliminary operations and maintenance manuals and installation. The Contract will be **paid to no more than 80%** upon successful startup and the receipt and acceptance of final operations and maintenance manuals. The Contract will be **paid to no more than 90%** upon completion of operations and maintenance training as outlined in Division 1 Section 01670 Training. The Contract will be **paid to no more than 95%** upon final completion and the substantial punch list items are addressed to Owner Satisfaction. **These 70, 80, 90, & 95 payment thresholds will be listed in the schedule of values under each of the applicable critical equipment or items.**
 - g. Mobilization activities shall be broken out and include, but not be limited to, delivery of equipment and materials to the project site, setup of

temporary facilities (such as offices, trailers, and storage areas), and installation of temporary utilities (such as power, water, and telecommunications).

- h. Site preparation activities shall be broken out and include, but not be limited to, excavation and grading of the site, installation of erosion control measures, and preparation of access roads.
- i. The schedule shall clearly identify and break out all major equipment and systems to be installed on the project, along with their associated installation activities.
- j. Major systems shall break out and include, but not be limited to, electrical, light fixtures, control panels, communication/fiber installation, mechanical, plumbing, security, and fire protection systems.
- k. Electrical duct bank sections break out and include, but not be limited to, Electrical duct bank section and linear feet, associated excavation, installation with concrete, backfill, duct bank materials less concrete, wire, and geo tagging/plaques.
- l. Electrical gear break out and include, but not be limited to, ATS (receivable), XFMR (receivable), LP (receivable), PDP (receivable), etc.
- m. Electrical manholes break out and include, but not limited to, each manhole, set in place/poured, backfill, grounding and racking, etc.
- n. Communication and termination services break out and include, but not limited to fiber optic cable stand and linear feet, term kits, termination, removal of fiber, installation of new fiber, etc.
- o. The schedule shall have broken out and include inspection, testing, and commissioning of all critical equipment and systems.
 - Travel expenses to manufacture site for gear and motor acceptance testing shall be broken out on as separate line items.
- p. The Contractor shall break out and provide a detailed schedule for all programming and startup activities required for the successful operation of the project. This shall include, but not be limited to, setup and configuration of all software systems, verification of system interfaces, and initial testing of system functionality.
- q. The schedule shall clearly break out and identify all testing and commissioning activities required for the successful completion of the project.
 - This shall include, but not be limited to, verification of system performance, testing of backup systems, and simulation of emergency scenarios.
- r. The Contractor shall break out and provide a detailed schedule for all training activities required to ensure that Owner's personnel are able to operate and maintain the completed project.
 - This shall include, but not be limited to, training on the use of equipment and software systems, emergency procedures, and routine maintenance activities.
 - Gear, I&C, and PLC training shall be broken out as separate line items.
- s. The schedule shall break out and include all activities required for project close-out and turnover, including but not limited to, completion of punch list items, final inspection by the Owner, and turnover of all project documentation and manuals.
- t. Spare Parts shall break out and include, but not limited to, all major spare parts, panels, PLC/OIU, communication equipment, etc.
- u. Summation of the complete schedule of values representing all Work under the Agreement to equal the Contract Price.

1.03 SCHEDULE OF ESTIMATED PROGRESS PAYMENTS

- A. Show estimated payment requests throughout Contract Times aggregating initial Contract Price.
- B. The Contractor shall break out all critical activities and milestones in the progress schedule, including but not limited to:
 - 1. Pre-construction activities:
 - a. Permits and approvals
 - b. Submittals and approvals
 - c. Shop drawings and approvals
 - d. Procurement and delivery of long lead items
 - e. Hiring of key personnel
 - 2. Mobilization and site preparation:
 - a. Delivery of equipment and materials to the project site
 - b. Setup of temporary facilities (offices, trailers, storage areas)
 - c. Installation of temporary utilities (power, water, telecommunications)
 - d. Excavation and grading of the site
 - e. Installation of erosion control measures
 - f. Preparation of access roads
 - 3. Construction and installation of critical equipment and systems:
 - a. Clear identification of all major equipment and systems to be installed on the project.
 - b. Associated installation activities for critical systems, including electrical, mechanical, plumbing, security, and fire protection systems.
 - c. Adequate time for inspection, testing, and commissioning of all critical equipment and systems
 - 4. Programming and startup activities:
 - a. Setup and configuration of all software systems
 - b. Verification of system interfaces
 - c. Initial testing of system functionality
 - d. Adequate time for training of Owner's personnel on the use of all software systems
 - 5. Testing and commissioning:
 - a. Clear identification of all testing and commissioning activities required for the successful completion of the project.
 - b. Verification of system performance
 - c. Testing of backup systems
 - d. Simulation of emergency scenarios
 - e. Adequate time for correction of any defects or deficiencies identified during testing
 - 6. Training of Owner's personnel:
 - a. All training activities required to ensure that Owner's personnel can operate and maintain the completed project
 - b. Training on the use of equipment and software systems
 - c. Emergency procedures
 - d. Routine maintenance activities
 - 7. Close-out and turnover activities:
 - a. All activities required for project close-out and turnover of all spare parts.
 - b. Completion of punch list items
 - c. Final inspection by the Owner
 - d. Turnover of all project documentation and manuals
 - e. Adequate time for resolution of any outstanding issues or disputes related to the project
- C. Base estimated progress payments on initially acceptable progress schedule. Adjust to reflect subsequent adjustments in progress schedule and Contract Price as reflected by modifications to the Contract Documents.

- D. The schedule shall include a detailed breakdown of the estimated costs associated with each activity and milestone and shall clearly identify the percentage of completion associated with each payment request.
- E. The Contractor shall provide regular updates to the progress schedule throughout the duration of the project and shall notify the Owner in writing of any changes to the schedule or estimated costs that could impact the completion of the project.
- F. The Contractor shall provide the Owner with regular progress reports that detail the actual work completed, any issues or delays encountered, and the remaining work to be completed.
- G. The Contractor shall provide a detailed schedule for all training and programming activities required for the successful operation of the project and shall provide regular updates to the schedule as necessary.
- H. The Contractor shall be responsible for ensuring that all activities and milestones are completed on schedule and in accordance with the Contract Documents. If the Contractor encounters any delays or issues that could impact the schedule, the Contractor shall notify the Owner in writing and propose a plan to mitigate the impact of the delay.
- I. The Contractor shall be entitled to progress payments only after the corresponding milestones and deliverables have been completed to the Owner's satisfaction, and after the Owner has verified the percentage of completion associated with each payment request.
- J. The Owner shall have the right to inspect and verify all progress payments made to the Contractor and may withhold or adjust payment amounts as necessary to ensure that the actual work completed is consistent with the payment request.
- K. The Contractor shall be responsible for all costs associated with the preparation and submission of the progress schedule and any updates thereto, including any fees for professional services required to prepare the schedule.

1.04 APPLICATION FOR PAYMENT

- A. Reference the General Conditions.
- B. Transmittal Summary Form: Provided by ENGINEER. Attach one Summary Form with each Application for Payment for each schedule; include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized Officer of CONTRACTOR.
- C. Use Application for Payment Form acceptable to OWNER and ENGINEER.
 - 1. Provide separate form for each schedule as applicable.
 - 2. Include accepted schedule of values for each schedule or portion of Work, the price breakdown for Work, a listing of OWNER-selected equipment, if applicable, and allowances, as appropriate.
 - 3. Form(s) to conform to the examples furnished by ENGINEER for Lump Sum Work and materials on hand.
- D. Preparation
 - 1. Round values to nearest dollar.
 - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Summary Sheet for each schedule as applicable.
 - 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form for each schedule as applicable, a listing

of materials on hand for each schedule as applicable, and such supporting data as may be requested by ENGINEER.

4. Include "Contractor Affidavit for Partial Payment" (Attachment "A" to this Section).

1.05 MEASUREMENT - GENERAL

- A. Reference the General Conditions for additional requirements on Unit Price Work.
- B. The Contractor shall be responsible for ensuring that the correct units of measurement are used for each item of Work and that all measurements are made in accordance with the Contract Documents.
- C. If the Contractor believes that a different unit of measurement is more appropriate for a particular item of Work, the Contractor shall notify the Owner in writing and provide a detailed explanation of the basis for its request. The Owner shall have the right to accept or reject the Contractor's proposed unit of measurement in its sole discretion.
- D. The Contractor shall provide all necessary equipment and personnel to perform the required measurements, and shall ensure that all measurements are accurate and made in accordance with applicable laws, regulations, and standards
- E. The Owner shall have the right to inspect and verify all measurements made by the Contractor and may request that the measurements be re-checked or verified by an independent third-party.
- F. The Contractor shall be responsible for correcting any errors or discrepancies identified during the measurement process at its own cost and expense.
- G. Units of measure shown on the Bid Form to be as follows unless specified otherwise.

Item	Method of Measurement
AC	Acre-Field Measure by ENGINEER
CY	Cubic Yard - Field Measure by ENGINEER within the limits specified or shown
CY-VM	Cubic Yard-Measured in the Vehicle by Volume
EA	Each-Field Count by ENGINEER
GAL	Gallon-Field Measure by ENGINEER
HR	Hour
LB	Pound(s) - Weight Measure by Scale
LF	Linear Foot-Field Measure by ENGINEER
LS	Lump Sum-Unit is one; no measurement will be made
MFBM	Thousand Foot Board Measure-Delivery Invoice
SF	Square Foot
SY	Square Yard
T	Ton-Weight Measure by Scale

1.06 PAYMENT

- A. General: Progress payments will be made monthly on the date established at the Pre-Construction Meeting.
- B. Payment for all Work shown or specified in the Contract Documents is included in the Contract Price.

- C. Payment for Mobilization: Payment for mobilization shall be made in accordance with Standard Specification Item No. 700S Mobilization.

1.07 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.
 - 4. Material not unloaded from transporting vehicle.
 - 5. Defective Work not accepted by OWNER.
 - 6. Material remaining on hand after completion of Work.
 - 7. The Contractor shall promptly remove any rejected or unused products from the project site and dispose of them in an appropriate and lawful manner, at the Contractor's sole cost and expense.
 - 8. If the Contractor disputes the rejection of any product or the Owner's determination that a product is unused, the Contractor shall promptly notify the Owner in writing and shall provide a detailed explanation of the basis for its dispute. The Contractor shall not be entitled to payment for any disputed product or material until the dispute is resolved.
 - 9. The Contractor shall be responsible for ensuring that all products and materials used on the project are of the specified quality and meet the requirements of the Contract Documents. The Contractor shall promptly replace any defective work or materials at its own cost and expense.
 - 10. The Owner reserves the right to inspect and test any product or material used on the project to verify its quality and conformance with the Contract Documents. If any product or material is found to be deficient or non-conforming, the Contractor shall promptly remove and replace it at its own cost and expense.

1.08 PARTIAL PAYMENT FOR STORED MATERIALS AND EQUIPMENT

- A. Reference Section 14.1.4 of the General Conditions (Section 00700).

1.09 FINAL APPLICATION FOR PAYMENT

- A. Reference the General Conditions.
- B. The Final Application for Payment shall be submitted in accordance with the schedule established in the Contract Documents. The Contractor shall provide a detailed breakdown of the amount requested, including a list of all completed Work and the corresponding Contract Price, less any previous payments made.
- C. The Owner shall have the right to inspect and verify the completion of all Work before making final payment to the Contractor. The Contractor shall be responsible for correcting any deficiencies identified during the inspection.
- D. The Contractor shall be entitled to final payment only after the Owner has accepted all completed Work and received all required close-out documents, including warranties, guarantees, and maintenance manuals.
- E. In the event that the Contractor fails to complete the Work in accordance with the Contract Documents, the Owner shall have the right to withhold final payment until the deficiencies have been corrected to the Owner's satisfaction.

- F. The Contractor shall be responsible for all costs associated with the preparation and submission of the Final Application for Payment, including any fees for professional services required to prepare the required documents.
- G. The Final Application for Payment shall be signed and dated by an authorized representative of the Contractor and submitted to the Owner in accordance with the Contract Documents.
- H. Prior to submitting final application, make acceptable delivery of required documents.
 - 1. Affidavit of Bills Paid.
 - 2. Certification of Completion (By Contractor).
 - 3. Certification of Completion (By Subcontractor). Provide a certification for all subcontractors who provided labor and materials incorporated into the Work.
 - 4. Close-out documents outlined by the Contract and Owner
 - 5. Warranty spreadsheet as required by O&M specification 01730
 - 6. Spare parts delivered
 - 7. All warranties and guarantees.
 - 8. All training and maintenance manuals
 - 9. Other documentation that may be required elsewhere in the Contract Documents.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

PART 4 APPENDIX (EXAMPLE SCHEDULE OF VALUES)

****SEE EXAMPLE FROM OWNER BELOW - THIS EXAMPLE SCHEDULE MAY NOT INCLUDE ALL THE REQUIREMENTS ABOVE - CONTRACTOR IS REQUIRED TO READ AND INCORPORATE THE ADDITIONAL REQUIREMENTS INTO THE FINAL SCHEDULE OF VALUES****

SCHEDULE OF VALUES

Date:	
Values:	
Submitted To:	
New Submittal:	
Resubmittal:	
Submitted By:	
Contract Name:	COA - NAME - CLMC???

Item #	Spec.	Item Description
1	0700	Schedule Of Values
2	01025	Measurement And Payment

SUBMITTAL NOTES / COMMENTS:

Release of retainage will be conditioned upon the receipt and approval of items listed in Division 1 Section 01730 Operation and Maintenance Data. The Contract will be **paid to no more than 70%** upon receipt of preliminary operations and maintenance manuals and installation. The Contract will be **paid to no more than 80%** upon successful startup and the receipt and acceptance of final operations and maintenance manuals. The Contract will be **paid to no more than 90%** upon completion of operations and maintenance training as outlined in Division 1 Section 01670 Training. The Contract will be **paid to no more than 95%** upon final completion and the substantial punch list items are addressed to Owner Satisfaction. **These 70, 80, 90, & 95 payment thresholds will be listed in the schedule of values under each of the applicable critical equipment or items.**

PGC Review Stamp

Engineer Review Stamp

ITEM NO.	Plan Set Position Number/Tag	Sheet Reference	Specification Reference	DESCRIPTION OF WORK	SCHEDULED VALUE	QTY	UNIT	UNIT PRICE	% WORK COMPLETED		TOTAL % COMPLETE	\$ WORK COMPLETED		TOTAL \$ COMPLETE	BALANCE TO FINISH
									THIS PERIOD	FROM PREV PAY APP		THIS PERIOD	FROM PREV PAY APP		
1				Mobilization - Bond Payment		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
2				Mobilization - 1%:50%, 5%:75%, 10%:100%		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
3				Environmental Controls		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Parking Lot Improvements											
4				Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
5				Remove Site Light Poles		4	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
6				Sawcut, Demo, Excavate		9034	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
7				Valve Box Adjustments		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
8				Subgrade Prep		9034	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
9				Curb and Gutter		392	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
10				HMAC - 4in Type D		770	SY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
11				Concrete Paving @ Cart Parking		300	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
12				Boulder Rip Rap		485	CF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
13				Reinstall Site Light Poles		4	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
14				Tree Care Plan/Mitigation (Dwg. C-41)		3	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
15				Grading and Topsoil		125	SY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
16				Reveg and Planting		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
17				Striping and Signage		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
18				Cart Parking Canopy		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Site Demolition											
19				Demo 18" Retaining Walls		36	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
20				Demo 12" Retaining Walls		134	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
21				Demo Existing Sludge Change Over Vault		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
22				Demo, Cut, Plug Yard Piping Sludge Change Over		782	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Yard Piping and UG Electrical											
23				Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
24				HydroExcavation / Potholing (Entire Project)		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
25				Temp Sludge Bypass Lines		135	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Storm Water Re-Route											
26				Demo 24in RCP		60	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
27				Install 5' Dia. SWMH's		3	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
28				Install 24in RCP		12	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
29				Install 30in RCP		53	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
30				Demo Existing SDMH		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
31				Install 6' Dia. SWMH-4		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
32				Install 12in DI Overflow Pipe		112	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Temporary Raw Water Bypass Pump System											
33				Temp Pump Pad		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
34				Temp Pump Electrical & Controls		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
35				Install Temp HDPE 6" Bypass Piping		300	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
36				Install Temp HDPE 8" Bypass Piping		330	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
37				Temp Bypass Pumps (Engineer, Rental, Set Up)		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
38				Demo Temp Bypass Pumps, Pipe, Electrical		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				6in Water / Fire Lines											
39				Tie In to Existing 8in DI Fire Line		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
40				Install 6in DI Waterline		1220	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
41				Install 6in Gate Valves on Waterline		6	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
42				Install ARV's for 6in Waterline		2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
43				Install 6in DI Firelines Branch, Gate Valves & Hydrants		2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
44				Bore and Install 142LF of 12in Casing and 6in DI WL		142	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
45				Install 4in DI Waterline to Centrifuge Building		40	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
46				Pressure Testing & Disinfection		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
47				Tie In at Existing 12in WL STA 13+58.37		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
48				Repair 10" PVC Double Containment (Dwg. C-12)		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
				Sludge Piping Area Underground											
49				Install 4in DI Sludge Line UFC1		28	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
50				Install 4in DI Sludge Line UFC2		29	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	

51			Install 4in DI Sludge Line UFC3	48	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
52			Install 4in DI Sludge Line UFC4	54	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
53			Install 4in DI Sludge Line UFC5	81	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
54			Install 4in DI Sludge Line UFC6	78	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
55			Install 4in DI Sludge Line UFC7	84	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
56			Install 4in DI Sludge Line UFC8	78	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
57			Install 4in DI Sludge Line to SH Tank No.2	54	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
58			Install 4in DI Drain Lines	30	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
59			Install 6in DI Sludge Lines	110	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
60			Relocate 8in Sludge Line	62	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
61			Remove & Replace 8in RW w/ 12in DI RW to VV9	306	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
62	ULL-SHF-GV-01		RW 12" FM Iso Valve ULL-SHF-GV-01	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
63	ULL-SHF-GV-02		RW 12" FM Iso Valve ULL-SHF-GV-02	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
64			Demo Existing VV9 Interior Piping	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
65			Install VV9 Interior 48in X 36in Piping	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
66			Install VV9 12in and 6in Piping	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
67	ULL-VV9-GV-01		Install 12" RW Iso Valve ULL-VV9-GV-01	1	EA	0.00%	100.00%	100.00%	\$0.00	\$0.00	\$0.00
68	ULL-VV9-GV-02		Install 12" RW Iso Valve ULL-VV9-GV-02	1	EA	0.00%	100.00%	100.00%	\$0.00	\$0.00	\$0.00
69	ULL-VV9-GV-03		Install 12" RW Iso Valve ULL-VV9-GV-03	1	EA	0.00%	100.00%	100.00%	\$0.00	\$0.00	\$0.00
70	ULL-VV9-GV-04		Install 6" RW Iso Valve ULL-VV9-GV-04	1	EA	0.00%	100.00%	100.00%	\$0.00	\$0.00	\$0.00
71			Install Flowmeter Vault (Structure & Accessories)	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
72			Install Flowmeter Vault Piping	10	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
73			Install Flowmeter Vault 4" Drain Backwater Valve	1	EA	0.00%	100.00%	100.00%	\$0.00	\$0.00	\$0.00
74			Install 6in RW DI	100	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
75			Install 1-1/2in CA/CS Lines to Sludge Handling	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			<i>Clearwell to M/HSP Building Compressed Air</i>								
76			Underground Compressed Air Line and Valves	550	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
77			CA Lines in M/HSP Building	150	LF	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			<i>Electrical</i>								
78			Demo Site Feeders Sht E04 - E05	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
79			DB-01 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
80			DB-01 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
81			DB-02 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
82			DB-02 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
83			DB-03 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
84			DB-03 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
85			DB-04-1 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
86			DB-04-1 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
87			DB-04-2 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
88			DB-04-2 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
89			DB-04-3 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
90			DB-04-3 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
91			DB-05 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
92			DB-05 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
93			DB-06 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
94			DB-06 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
95			DB-08 - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
96			DB-08 - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
97			DB-09A - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
98			DB-09A - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
99			DB-09B - Site Ductbank - Conduit	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
100			DB-09B - Site Ductbank - Wire & Termination	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Sludge Handling Facility:								
101			Submittals	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
102			Demo Existing RW Pumps, Pads, Piping	1	LS	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
103	ULL-SHF-RAWPUMP-04		Install New RW Pump ULL-SHF-RAWPUMP-04	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
104	ULL-SHF-RAWPUMP-05		Install New RW Pump ULL-SHF-RAWPUMP-05	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
105	ULL-SHF-PV-51		RW 8" Discharge Valve ULL-SHF-PV-51	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
106	ULL-SHF-BFV-02		RW 6" Discharge Valve ULL-SHF-BFV-02	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
107	ULL-SHF-BFV-03		RW 8" Pump Suction Valve ULL-SHF-BFV-03	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
108	ULL-SHF-BFV-04		RW 8" Pump Suction Valve ULL-SHF-BFV-04	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
109	ULL-SHF-BFV-05		RW 8" Pump Discharge Valve ULL-SHF-BFV-05	1	EA	0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00

110	ULL-SHF-BFV-06			RW 8" Pump Discharge Valve ULL-SHF-BFV-06	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
111	ULL-SHF-BFV-07			RW 6" PRV Iso Valve ULL-SHF-BFV-07	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
112	ULL-SHF-BFV-08			RW 6" PRV Iso Valve ULL-SHF-BFV-08	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
113	ULL-SHF-CV-01			RW 6" Pump Discharge Check Valve ULL-SHF-CV-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
114	ULL-SHF-CV-02			RW 6" Pump Discharge Check Valve ULL-SHF-CV-02	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
115	ULL-SHF-PRV-01			6" Pressure Reducing Valve ULL-SHF-PRV-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
116	ULL-SHF-BFV-01			RW 6" Discharge Valve ULL-SHF-BFV-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
117	ULL-SHF-BV-01			Air Piping Discharge 1.5" Ball Valve ULL-SHF-BV-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
118	ULL-SHF-CV-03			RW Pump Seal Water 2" Check Valve ULL-SHF-CV-03	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
119	ULL-SHF-GV-03			RW Pump Seal Water 2" Gate Valve ULL-SHF-GV-03	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
120	ULL-SHF-GV-04			PW Pump Seal Water 2" Gate Valve ULL-SHF-GV-04	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
121				Install Masonry Wall Sleeves	4	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
122				Install Interior Pipes, Fittings, and Supports	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
123	SHF-PRV-02			Pressure Reducing Valve SHF-PRV-02	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
124	SHF-EWH-01			Expansion Tank SHF-ET-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
125	SHF-EWH-01			Electric Water Heater SHF-EWH-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
126	ES/EEW-1			Emergency Shower/Eye/Face Wash Combo ES/EEW-1	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
127				Coatings	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
128	SHF-PRV-01			Install Power Roof Ventilator SHF-PRV-01	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
129				Install Intake Louver 401A and Control Damper CD-3	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
130				Install Intake Louver 401B and Control Damper CD-4	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
131				Electrical Demo Old Pumps and LOTO	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
				<i>Branch Power & Lighting Conduit</i>									
132				3/4" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
133				1.5" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
134				2" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
				<i>Interior Feeder and Control Conduit Installation</i>									
135				3/4" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
136				1.5" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
137				2" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
138				2.5" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
139				4" Conduit Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
				<i>Wiring - Terminations & Devices</i>									
140				#14 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
141				#12 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
142				#4 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
143				#2 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
144				350 MCM 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
145				500 MCM 600V Wire	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
146				Fixtures Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
				<i>Equipment & Switchgear Installation</i>									
147				Wall Mounted Strut Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
148				Strut Racks for Freestanding Equipment	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
149				Building Interior Disconnects	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
150				Building Exterior Disconnects	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
151				Misc. Junction Boxes	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
152				Control Panel Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
153				Grounding	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
154				Start Up and Commissioning	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
				Containment Basin:									
155				Submittals	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
156				Excavation & Subgrade Prep	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
157				Mud Slab	1500	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
158				Foundation	1404	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
159				Walls	188	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
160				Grout Floor	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
161	ULL-COB-SG-02			Install Gate ULL-COB-SG-02	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
162	ULL-COB-SG-02			Install Gate ULL-COB-SG-02	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
163	ULL-Y-SG-03			Install Gate ULL-Y-SG-03	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
164				Install Handrail	71	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
165				Install Grating	83	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
166				Backfill and Grading	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
167				Underslab Electrical Rough-In	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00

168			Branch Power & Lighting Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
169			Wiring - Terminations & Devices		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
170			Electrical Fixtures Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
171			Electrical Equipment & Switchgear Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
172			Grounding		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
173			Start Up and Commissioning		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Electric Building:										
174			Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
175			Excavation		100	CY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
176			Subgrade Prep		975	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
177			Backfill		80	CY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
178			Foundation		350	SF		0.00%	-200.00%	-200.00%	\$0.00	\$0.00	\$0.00
179			Waterstop		67	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
180			Housekeeping Pads		115	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
181			Walls		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
182			Roof		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
183			Doors and Windows		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
184			Insulation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
185	SHF-HVAC-02		Packaged HVAC Unit SHF-HVAC-02		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
186	SHF-HVAC-03		Packaged HVAC Unit SHF-HVAC-03		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
187	SHF-T-01, SHF-H-01, SHF-LLCP-01		HVAC Controls SHF-T-01, SHF-H-01, SHF-LLCP-01		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
188	SHF-T-02, SHF-H-02, SHF-LLCP-02		HVAC Controls SHF-T-02, SHF-H-02, SHF-LLCP-02		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
189	SHF-UH-01		Heater SHF-UH-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
190	SHF-UH-02		Heater SHF-UH-02		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
191			Roof Fluid Applied Membrane		460	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
192			Switchgear Materials SHF-MCC-02, SHF-CONTROL PANEL-04, SHF-RWP04-VFD-01, SHF-RWP05-VFD-01		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
193			Short Circuit Coordination SCCAFMSH Study		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
194			NETA Acceptance Testing Services		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
195			Light Fixtures		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Underslab & Underground Conduit										
196			PVC Conduit and Stubups 1.5"		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
197			PVC Conduit and Stubups 2"		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
198			PVC Conduit and Stubups 3"		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
199			PVC Conduit and Stubups 4"		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
200			Interior Branch & Lighting Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
201			Interior Controls & Instrument Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
202			Interior Feeder Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
203			Branch Wiring - Terminations & Devices		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
204			Fixtures Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
205			Equipment & Switchgear Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
206			Building Grounding		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
207			Lightning Protection System		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
208			Start Up, and Commissioning of SHF-MCC-02, SHF-RWP04-VFD-01, SHF-RWP05-VFD-01		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
209	SHF-CONTROL PANEL-04		Start Up, and Commissioning of SHF-CONTROL PANEL-04		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Centrifuge Building:										
210			Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
211			Water Heater and Expansion Tank Pad		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
212			Emergency Shower Pad		2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
213			PRV and BF Preventer Supports/Pads		3	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
214	CEB-PRV-01		Pressure Reducing Valve CEB-PRV-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
215	CEB-BFP-01		PW 1.5" Backflow Preventer CEB-BFP-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
216	CEB-BFP-02		NPW 1" Backflow Preventer CEB-BFP-02		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
217	CEB-CP-01		In-Line Hot Water Circ Pump CEB-CP-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
218	CEB-ET-01		Expansion Tank CEB-ET-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
219	CEB-EWH-01		Electric Water Heater CEB-EWH-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
220	SS-2		Service Sink SS-2		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
221	ES/EEW-1		Emergency Shower/Eye/Face Wash Combo ES/EEW-1		2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
222			Mechanical Plumbing to Connect All Equipment		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
223			Branch Power & Controls Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
224			Wiring - Terminations & Devices		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00

225			Fixtures Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
226			Equipment & Switchgear Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Sludge Change Over Facility:										
227			Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
228			Excavation Safety/Shoring		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
229			Excavation		700	CY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
230			Subgrade Prep		975	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
231			Floor Drains		5	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
232			Foundation		613	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
233			Starter Wall and Waterstop		86	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
234			Walls		88.5	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
235			Waterproofing		550	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
236			Roof		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
237			Doors and Windows		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
238		CD-1	Control Damper CD-1		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
239		CD-2	Control Damper CD-2		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
240		SHF-PF-01	Fan SHF-PF-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
241		SHF-UH-03	Heater SHF-UH-03		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
242		SHF-UH-04	Heater SHF-UH-04		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
243		SHF-T-04	Thermostat SHF-T-04		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
244			French Drain System		60	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
245			Backfill		340	CY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
246		ULL-SHF-PV-11	UFC1 4" Sludge Valve ULL-SHF-PV-11		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
247		ULL-SHF-PV-12	UFC2 4" Sludge Valve ULL-SHF-PV-12		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
248		ULL-SHF-PV-13	UFC3 4" Sludge Valve ULL-SHF-PV-13		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
249		ULL-SHF-PV-14	UFC4 4" Sludge Valve ULL-SHF-PV-14		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
250		ULL-SHF-PV-15	UFC5 4" Sludge Valve ULL-SHF-PV-15		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
251		ULL-SHF-PV-16	UFC6 4" Sludge Valve ULL-SHF-PV-16		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
252		ULL-SHF-PV-17	UFC7 4" Sludge Valve ULL-SHF-PV-17		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
253		ULL-SHF-PV-18	UFC8 4" Sludge Valve ULL-SHF-PV-18		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
254		ULL-SHF-PV-31	UFC 1 to UFC 2 Inter. 4" Sludge Valve ULL-SHF-PV-31		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
255		ULL-SHF-PV-32	UFC 5 to UFC 6 Inter. 4" Sludge Valve ULL-SHF-PV-32		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
256		ULL-SHF-PV-33	UFC 7 to UFC 8 Inter. 4" Sludge Valve ULL-SHF-PV-33		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
257		ULL-SHF-PV-41	Sludge Holding Tank Inlet 6" Valve ULL-SHF-PV-41		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
258		ULL-SHF-PV-42	Sludge Holding Tank Inlet 6" Valve ULL-SHF-PV-42		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
259		ULL-SHF-PV-43	Sludge Holding Tank Inlet 6" Valve ULL-SHF-PV-43		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
260		ULL-SHF-PV-44	Sludge Holding Tank Inlet 4" Valve ULL-SHF-PV-44		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
261		ULL-SHF-PV-01	Sludge Thickener Eff Iso 6" Valve ULL-SHF-PV-01		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
262		ULL-SHF-PV-02	Existing Sludge Pipe Iso 6" Valve ULL-SHF-PV-02		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
263		ULL-SHF-PV-03	RW Discharge to STPS 6" Valve ULL-SHF-PV-03		1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
264			Install Interior Pipes, Fittings, and Supports		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
265			Install Wall Pipes/Penetrations		9	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
266			Coatings		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
267			Retaining Walls		146	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
268			Sidewalk & Valley Gutter		179	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
269			Feed Conduit		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
270			Interior Branch & Lighting Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
271			Interior Controls & Instrument Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
272			Interior Feeder Conduit Installation		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
273			Branch Wiring - Terminations & Devices		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
274			Electrical Fixtures		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
275			Building Grounding		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Administration Building:										
276			Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
277			Demo RW Piping, Pumps, Pedastals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
278			Demo Hydro Tank		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
279			New Pipe, Valves, Fittings		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
280			Compressed Air Modifications		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
			Site Work (Not in Others):										
281			Submittals		1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
282			Concrete Paving 7in Thick		8700	SF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
283			HMAC Mill and Pave		3690	SY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00
284			Revegetation		1250	SY		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00

285			Metal Railings at Sludge X-Over Retaining Walls & Stairs	113	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
286			Stair Modifications at Sludge Holding Tanks	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Instrumentation and Controls										
287			Submittals	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Panels										
288	SHF-CONTROLPANEL-04		SHF-CONTROLPANEL-04	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
289	SHF-COMMPANEL-04		SHF-COMMPANEL-04	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
290	SHF-NPST-001-CP		SHF-NPST-001-CP	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
291			Local Control Stations	6	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
292			Temporary Panel	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Existing Panel Modifications										
293	SHF-CP-001		SHF-CP-001	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
294	HUB-B		HUB-B	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Field Instrumentation										
295	(PDIT-02, FIT-01)		Differential Pressure Transmitter (PDIT-02, FIT-01)	2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
296	(PIT-01, 02)		Pressure Transmitter (PIT-01, 02)	2	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
297	(LSHH-05)		Float Switch (LSHH-05)	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
298			Visual Alarm Strobe Beacon	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
299			Pressure Switch (SHF-PSL-01, 02, 03, 04, PSL-01, PSL-04A, 04B, PSL-05A, 05B)	9	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
300	(FE-01)		Venturi Flow Meter (FE-01)	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
301	(PI-01, PI-04A, 04B, 04C, PI-05A, 05B, 05C)		Pressure Gauge (PI-01, PI-04A, 04B, 04C, PI-05A, 05B, 05C)	7	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Parts and Equipment										
302			Tablet PC, E&H Field Xpert SMT50	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
303			Ethernet Cable Tester, Fluke MicroScanner2 Pro	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
304			Fiber Optic Cable	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Spare Parts										
305			Spare Parts (PLC Modicon)	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
306			Spare Equipment (Network Equipment)	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Services										
307			Control Panel and Instrumentation Field Terminations	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
308			Fiber Optic Termination and Testing	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
309			Overall System Startup/Commissioning	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
310			Training	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
311			O&M Manuals	1	EA		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Trench Safety										
312			Submittals	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
313			Trench Safety	2000	LF		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			Special Shoring										
314			Submittals	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
315			Special Shoring Engineering	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
316			Special Shoring Drilling	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
317			Special Shoring Materials	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
318			Special Shoring Installation	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
319			Special Shoring Removal	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
320			Allowance #1 - Unclog Drain Pipe	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
321			Allowance #2 - Replace Valves	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
322			Allowance #3 - Security Comms Cable	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
323			Allowance #4 - HMAC Repair New Parking Lot	1	LS		0.00%	0.00%	0.00%	\$0.00	\$0.00	\$0.00	
			PROJECT TOTALS:	\$0.00						\$0.00	\$0.00	\$0.00	\$0.00

CITY OF AUSTIN PUBLIC WORKS DEPARTMENT MATERIALS ON HAND

PROJECT NAME:

CONTRACT NO.: Need from Owner

DEPARTMENT:

COA PUBLIC WORKS:

CIP ID No.: XXXX.XX

FUNDING NO.:

ESTIMATE NO.: 1

CONTRACTOR: NAME, LLC. ADDRESS, CITY, STATE, ZIP

INSPECTOR:

NAME:

A + B - C = D

FDU(s)	Invoice #	Pay App #	Item No. from BODY	\$ Value Stored	of Material this Period (A)	\$ Value of Material Stored at Beginning of Period (B)	\$ Value of Material Installed this Period (C)	Total \$ Value of Material Now Stored (D)
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00
					\$0.00	\$0.00	\$0.00	\$0.00

				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
				\$0.00	\$0.00	\$0.00	\$0.00	
							TOTAL	\$0.00

Release of retainage will be conditioned upon the receipt and approval of items listed in Division 1 Section 01730 Operation and Maintenance Data. The Contract will be **paid to no more than 70%** upon receipt of preliminary operations and maintenance manuals and installation. The Contract will be **paid to no more than 80%** upon successful startup and the receipt and acceptance of final operations and maintenance manuals. The Contract will be **paid to no more than 90%** upon completion of operations and maintenance training as outlined in Division 1 Section 01670 Training. The Contract will be **paid to no more than 95%** upon final completion and the substantial punch list items are addressed to Owner Satisfaction. **These 70, 80, 90, & 95 payment thresholds will be listed in the schedule of values under each of the applicable critical equipment or items.**

To the best of my knowledge from submitted paid invoices and material installed, I hereby certify that all materials on hand listed on the above "Materials on Hand" tabulation are stored on the job site in accordance with the contract specifications or at other locations specifically approved in writing by the:

SIGNATURE OF CONSULTANT / INSPECTOR
Contractor Signature

DATE

PRINT NAME OF CONSULTANT / INSPECTOR

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

Applicable portions of the Project Manual, including but not limited to relevant Drawings and Specifications.

1.2 SUMMARY

This Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

A. Alternate: A Bid Item for a scope of work described in the Section 00300 Bid Requirements and Contract Documents that, if accepted by Owner, may result in additions to or deductions from the Base Bid.

1.4 PROCEDURES

A. Coordination: The Contractor must modify or adjust any affected adjacent Work as necessary to completely integrate work of the Alternate into the Project.

B. The Contractor must include as part of each Alternate, any miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of the Alternate.

C. Notification: The awarded contract will include all accepted Alternates.

D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in such schedule contain requirements for materials necessary to achieve the Work described under each Alternate.

E. Bidders must respond to all Alternates listed on the 00300 Bid Form, even if acceptance or rejection of an alternate will not change the Bid amount. Bid amounts must be entered in the spaces for each Alternate in the Bid Form.

The Owner has established a priority order (Alternate No. 1 has the highest priority) for the acceptance of Bid Alternates based on the Project needs and budget. Alternates will be accepted in the order listed on the Bid Form, but such acceptance will not exceed the Project budget.

PART 2 - PRODUCTS

NOT USED

PART 3 – EXECUTION

3.1 SCHEDULE OF ALTERNATES

Alternate No. 1 Galvanized Steel for Canopy Structural Members: The purpose of Alternate No. 1 is to determine the possible construction cost savings of substituting galvanized steel canopy support members, shield walls, and roof for the specified 304 stainless steel as noted on Drawing S-10. This includes columns, beams, purlins, and girts. Galvanized members shall be coated per Section 05500 – Miscellaneous Metal Fabrications.

If Alternate No. 1 is accepted, it will be a credit that will be deducted from the overall Base Bid.

END

**Division 1 General Requirements
Grades, Lines and Levels
Section 01050**

1. CONTRACTOR shall perform all layout work to transfer all controls for grades, lines, levels and measurements from a minimum of two reference points provided by OWNER. All survey work will be performed under the direct supervision of a Texas Registered Professional Land Surveyor (RPLS).
2. Within 5 work days of the Notice To Proceed date, or within 10 Working Days of initiating work based on the approved Schedule in a new area of the Project, the CONTRACTOR shall survey and stake the locations of all proposed improvements behind the curb and within the ROW (examples: manholes, storm inlets, fire hydrants, etc.), or any other improvements identified by the OWNER'S REPRESENTATIVE, for the purpose of identifying the nature and location of these improvements to the adjacent property owner(s). The OWNER'S REPRESENTATIVE will identify to the CONTRACTOR the improvements to be staked.
3. OWNER will not stake for construction and will not be on site for survey layout activities, except to perform quality control checks.
4. CONTRACTOR shall be required to set elevation hubs (blue tops) for subgrade and base course on centerline, at quarter points and curb lines or edge of pavement at intervals not exceeding 50 feet.
5. The construction plans will include horizontal and vertical control points. References to approved COA benchmarks used in establishing controls on the drawings will be provided by the Owner's E/A. In addition, on building projects and/or projects not built within an existing public ROW, a boundary survey will be supplied together with a legal description of the property and all easements where Work will take place.
6. CONTRACTOR shall submit construction staking layout sheets sealed by a Professional Engineer or Registered Professional Land Surveyor registered in the State of Texas. CONTRACTOR shall use a qualification based selection process consistent with the Professional Services Procurement Act, Chapter 2254.004 of the Texas Government Code, when securing the services of a Professional Engineer or Registered Professional Land Surveyor. It is a violation of State Law to solicit bids for the services of a Professional Engineer or Registered Professional Land Surveyor.
 - 6.1 Any discrepancies found with the construction documents' dimensional layout will be corrected. CONTRACTOR shall assure that the Owner's Representative and E/A are notified so that the appropriate actions are taken to correct the Contract drawings.
 - 6.2 All Work shall be done to the lines, grades and elevations indicated on the drawings. Information concerning basic horizontal and vertical control points will be provided by the E/A, Lindsay Webb, PE. These points shall be used as the datum basis under this Contract.
 - 6.3 All work to transfer all controls for grades, lines, levels, layout and measurements shall be performed under the supervision of a Texas Registered Professional Land Surveyor, provided by the CONTRACTOR. Such work shall conform to the standards for construction staking in the most recent edition of the Texas Society

of Professional Surveyors Manual of Practice for Land Surveying, Category 5, Sections 1-12 inclusive.

- 6.4 The centerline and offset centerline stakes will be set at no greater than fifty (50) foot intervals and at points of alignment or grade changes. References to lines and grades as established by the CONTRACTOR's surveyor shall be in reference to these stake lines. The CONTRACTOR is required to provide a sealed statement from their RPLS that the controls are correct and the site layout has been done by their professional staff.
- 6.5 The CONTRACTOR shall place grade stakes and submit construction staking layout sheets. The CONTRACTOR shall allow a minimum of ten (10) days after submission to the Owner's Representative for review of construction staking layout sheets. Construction staking layout sheets shall include, at a minimum, the information contained in the form included at the end of this section. No Work shall be performed without Owner's Representative review and return to CONTRACTOR of construction staking layout sheets. The Owner's Representative, E/A and the CONTRACTOR shall review the survey controls on the ground.
- 6.6 Prior to any excavation, the CONTRACTOR shall establish the elevation to top of ground at centerline of the pipe as well as cuts and offset stakes at the distance deemed appropriate by the CONTRACTOR to preclude disturbance of offset stakes during construction.
- 6.7 The CONTRACTOR shall furnish, without charge, experienced personnel and such calibrated survey equipment, tools, stakes, and other materials that the Owner's Representative may require in establishing or checking control points, or in checking survey, layout, and measurement work performed by the CONTRACTOR.
- 6.8 The CONTRACTOR shall keep the Owner's Representative informed in a reasonable time in advance of the times and places at which they wishes to do work, so that any checking deemed necessary by the OWNER may be done with minimum inconvenience to the E/A and minimum delay to the CONTRACTOR. Surveying will be coordinated between the Owner's Representative and CONTRACTOR in a manner convenient to both.
- 6.9 During layout, CONTRACTOR shall field verify the elevation and alignment of all tie-in points to existing infrastructure. This work shall be performed sufficiently in advance of construction so that any conflicts may be resolved without delay. Any work done without being properly located may be ordered removed and replaced at the CONTRACTOR's expense.
- 6.10 The CONTRACTOR shall carefully preserve all monuments, benchmarks, reference points, and stakes. In case of the destruction thereof, the CONTRACTOR shall bear the cost of replacement and shall be responsible for any mistake or loss of time that may be caused. Permanent monuments or benchmarks, which must be removed or disturbed, shall be protected until properly referenced for relocation. The CONTRACTOR shall furnish materials and assistance for the proper replacement of such monuments or benchmarks.
- 6.11 The CONTRACTOR shall satisfy themselves before commencing work as to the meaning and correctness of all survey control stakes, marks, etc., and no claim will be entertained by the OWNER for or on account of any alleged inaccuracies,

unless the CONTRACTOR notifies the OWNER in writing before commencing the affected Work.

7. As needed for necessary documentation of the work progress, the CONTRACTOR shall maintain and/or protect offset or survey staking for the duration of the project. Any re-staking required to meet this requirement shall be done at the CONTRACTOR'S expense.
8. This item is subsidiary to the work as a whole.
9. Upon completion of construction, or at intervals specified in the Contract, CONTRACTOR shall provide a record survey of the work in progress or completed. This information will be submitted to the Owner's Representative and shall be supplied electronically and on a separate full size plan sheet to be transmitted to the E/A for evaluation and merging into the Record Drawings.

End See attached "Construction Staking Layout Sheet"

CONSTRUCTION STAKING LAYOUT SHEET

Project Name: _____
 C.I.P. ID#: _____
 Person Recording: _____
 Crew Members: _____
 General Purpose & Scope of Survey: _____

Date: _____
 Instrument No.: _____
 Weather Conditions: _____

STATION	B.S.	H.I.	F.S.	LEVEL LOOP ELEVATION	ROD READING	HUB ELEVATION AT STATION	(TARGET) (eg., pipe invert) ELEVATION	C - CUT OR F - FILL	% GRADE	NOTES: INDICATE WHETHER CENTERLINE HUB OR _____ FT. OFFSET HUB

DEFINITIONS

General: Basic Contract definitions are included in the General Conditions, Section 00700 included herein.

Approved: The term approved, when used in conjunction with the Owner's Representative's action on the CONTRACTOR'S submittals, applications, and requests, is limited to the Owner's Representative's duties and responsibilities as stated in the Conditions of the Contract. A stamp reading "No Exceptions Taken" shall have the same intent as "Approved".

Furnish: The term furnish means supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

Indicated: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. There is no limitation on location.

Install: The term install describes operations at the Project site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

Installer: An Installer is the CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in operations they are engaged to perform.

Project Site: The space available to the CONTRACTOR for performing construction activities either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

Provide: The term provide means to furnish and install, complete and ready for the intended use.

Regulations: The term regulations includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

Trades: Using terms such as carpentry is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as carpenter. It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

INDUSTRY STANDARDS

Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.

Conflicting Requirements: Where compliance with two or more standards is specified and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer to the Owner's Representative for a decision before proceeding.

Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

Abbreviations and Names: Trade association names, titles of general standards, and names and titles of government agencies are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	American Architectural Manufacturer's Association
AAN	American Association of Nurserymen.
AASHTO	American Association of State Highway and Transportation Officials.
AATCC	American Association of Textile Chemists and Colorists
ACI	American Concrete Institute
ACIL	American Council of Independent Laboratories
ACPA	American Concrete Pipe Association
ADC	Air Diffusion Council
AFBMA	Anti-Friction Bearing Manufacturers Association
AGA	American Gas Association
AGC	Associated General Contractors of America
AGMA	American Gear Manufacturers Association
AHA	American Hardboard Association
AHAM	Association of Home Appliance Manufacturers
AI	Asphalt Institute
AIA	American Institute of Architects
AIHA	American Industrial Hygiene Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction.
ALCA	Associated Landscape Contractors of America
ALI	Associated Laboratories, Inc.
ALSC	American Lumber Standards Committee
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute.

AOAC	Association of Official Analytical Chemists
AOSA	Association of Official Seed Analysts
APA	American Plywood Association
API	American Petroleum Institute.
AREA	American Railroad Engineers Association
ARI	Air Conditioning and Refrigeration Institute
ARMA	Asphalt Roofing Manufacturers Association
ASA	Acoustical Society of America
ASA	American Standards Association.
ASC	Adhesive and Sealant Council
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating & Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASPE	American Society of Plumbing Engineers
ASSE	American Society of Sanitary Engineering
ASTM	American Society for Testing and Materials.
AWCMA	American Window Covering Manufacturers Association
AWG	American Wire Gage
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers Association
AWPB	American Wood Preservers Bureau
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
BIA	Brick Institute of America
BIFMA	Business and Institutional Furniture Manufacturers Association
CAGI	Compressed Air and Gas Institute
CAUS	Color Association of the United States
CBM	Certified Ballast Manufacturers

CCC	Carpet Cushion Council
CDA	Copper Development Association
CE	Corps of Engineers
CFR	Code of Federal Regulations
CGA	Compressed Gas Association
CISCA	Ceiling and Interior Systems Construction Association
CISPI	Cast Iron Soil Pipe Institute
CPSC	Consumer Product Safety Commission
CRI	Carpet and Rug Institute
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard of NBS (U.S. Dept. of Commerce)
CTI	Ceramic Tile Institute
DFPA	Douglas Fir Plywood Association
DHI	Door and Hardware Institute
DLPA	Decorative Laminate Products Association
DOC	U.S. Department of Commerce
DOT	Department of Transportation
ECSA	Exchange Carriers Standards Association
EIA	Electronic Industries Association
EIMA	Exterior Insulation Manufacturers Association
EJMA	Expansion Joint Manufacturers Association
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FGMA	Flat Glass Marketing Association
FHA	Federal Housing Administration
FM	Factory Mutual Research Organization
FS	Federal Specifications
FSC	Forest Stewardship Council
FTI	Facing Tile Institute

GA	Gypsum Association
GSA	General Services Administration
HEI	Heat Exchange Institute
HI	Hydronics Institute
H.I.	Hydraulic Institute
HMA	Hardwood Manufacturers Association
HPMA	Hardwood Plywood Manufacturers Association
IBD	Institute of Business Designers
ICEA	Insulated Cable Engineers Association, Inc.
IEEE	Institute of Electrical and Electronic Engineers, Inc.
IESNA	Illuminating Engineering Society of North American
IGCC	Insulating Glass Certification Council
ILI	Indiana Limestone Institute of America
IMSA	International Municipal Signal Association
IRI	Industrial Risk Insurers
ISA	Instrument Society of America
ITE	Institute of Transportation Engineers
LEED™	Leadership in Energy and Environmental Design
LIA	Lead Industries Association, Inc.
LPI	Lightning Protection Institute
MBMA	Metal Building Manufacturer's Association
MCAA	Mechanical Contractors Association of America
MFMA	Maple Flooring Manufacturers' Association
MIA	Marble Institute of America
ML/SFA	Metal Lath/Steel Framing Association
MSS	Manufacturers Standardization Society of the Valve and Fittings Industry
MUTCD	Texas Department of Transportation Manual on Uniform Traffic Control Devices
NAAMM	National Association of Architectural Metal Manufacturers
NAIMA	North American Insulation Manufacturers Association
NAPA	National Asphalt Pavement Association

NBFU	National Board of Fire Underwriters
NBGQA	National Building Granite Quarries Association
NBS	National Bureau of Standards (U.S. Dept. of Commerce)
NCMA	National Concrete Masonry Association
NCRPM	National Council on Radiation Protection and Measurements
NCSPA	National Corrugated Steel Pipe Association
NEC	National Electrical Code (Published by NFPA)
NECA	National Electrical Contractors Association
NEII	National Elevator Industry, Inc.
NEMA	National Electrical Manufacturers Association
NETA	International Electrical Testing Association
N.F.P.A.	National Forest Products Association
NFPA	National Fire Protection Association
NHLA	National Hardwood Lumber Association
NIST	National Institute of Standards and Technology
NLGA	National Lumber Grades Authority
NOFMA	National Oak Flooring Manufacturers Association
NPA	National Particleboard Association
NPCA	National Paint and Coatings Association
NRCA	National Roofing Contractors Association
NWMA	National Woodwork Manufacturers Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Precast/Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PE	Professional Engineer
REA	Rural Electrification Administration
RFCI	Resilient Floor Covering Institute
RMA	Rubber Manufacturing Association
RPLS	Registered Professional Land Surveyor

SDI	Steel Deck Institute
S.D.I.	Steel Door Institute
SFPA	Southern Forest Products Association
SGCC	Safety Glazing Certification Council
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPIB	Southern Pine Inspection Bureau
SPRI	Single Ply Roofing Institute
SSPC	Steel Structures Painting Council
SSPMA	Sump and Sewage Pump Manufacturers Association
SWI	Steel Window Institute
SWPA	Submersible Wastewater Pump Association
TCA	Tile Council of America
TEX TEST	TxDOT Laboratory Test
TIMA	Thermal Insulation Manufacturers Association
TPI	Truss Plate Institute
TxDOT	Texas Department of Transportation
UL	Underwriters Laboratory, Inc.
USDA	U. S. Department of Agriculture
USGBC	U. S. Green Building Council
USPS	U. S. Postal Service
WCLIB	West Coast Lumber Inspection Bureau
WCMA	Wallcovering Manufacturers Association
WIC	Woodwork Institute of California
WLPDIA	Western Lath, Plaster, Drywall Industries Association
WRI	Wire Reinforcement Institute
WSC	Water Systems Council
WSFI	Wood and Synthetic Flooring Institute
WWPA	Western Wood Products Association
W.W.P.A.	Woven Wire Products Association

END

A Storm Water Pollution Prevention Plan is not required for this project.

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Documents related to this section will include the construction drawings and general provisions of the Contract, including the General Conditions, Section 00700, Supplemental General Conditions, Section 00810, and other Division 1 requirements.

1.2 SUMMARY

- A. This section describes the preconstruction conference and other Project related meetings which may be held on a routine schedule throughout the duration of the Project.
- B. The CONTRACTOR, or his authorized representative(s), shall attend all Project related meetings as indicated herein. The CONTRACTOR's representatives, as a minimum, shall include his Project Manager and Superintendent. Other CONTRACTOR's representatives may attend Project related meetings; however, there shall be a maximum of four (4) CONTRACTOR's representatives at any one meeting unless the ENGINEER/ARCHITECT approves a larger number.
- C. The CONTRACTOR shall provide all pertinent reports, copies of reports, etc., for each meeting as may be required by this or other sections of the Contract.

1.3 PARTNERING WORKSHOP

- A. To complete this work most beneficially for all parties, the Owner desires to form a Partnering Team among the Owner, Engineer/Architect, Contractor, and Subcontractor(s). This relationship will draw on the strength of all parties to identify and achieve mutual goals. The objectives are effective and efficient contract performance, intended to achieve completion within budget, on schedule, and in accordance with the drawings and specifications.
- B. The Owner will schedule a Partnering Workshop independent of or in conjunction with the Preconstruction Conference, to facilitate the project objectives. The partnering relationship will be multilateral in makeup and participation will be totally voluntary.

1.4 PRECONSTRUCTION CONFERENCE

- A. Attendees

A preconstruction conference shall be held as soon after the award and execution of the Contract as possible and before any Work at the site is started. The conference will be held at a location selected by the Owner's Project Manager. The Owner's Project Manager shall prepare and distribute the meeting agenda, preside over the conference, and may distribute meeting minutes. The conference shall be attended by:

1. CONTRACTOR's Project Manager.
2. CONTRACTOR's Superintendent.
3. Any Subcontractors' and/or Suppliers' representatives whom the CONTRACTOR may desire to invite or whom the ENGINEER/ARCHITECT or OWNER may request to attend.
4. ENGINEER/ARCHITECT's representative.
5. OWNER's Project Manager.
6. OWNER's REPRESENTATIVE
7. OWNER's Sponsor Department Representative.

8. Representative from the City of Austin, Transportation Department if a traffic management plan is required.
9. Representative from the City of Austin, Watershed Protection and Development Review Department, Environmental Inspection Division, if site erosion / sedimentation controls are required.
10. Representative from the City of Austin, Transportation Department if utility coordination has occurred through the Austin Utility Location and Coordination Committee.
11. Representative from the City of Austin, Contract Management Department, Contract Administration Division, to discuss wage.
12. Representative from the City of Austin, Small and Minority Business Resources Department to discuss M/WBE compliance.

B. Meeting topics

The topics to be discussed may include, but will not be limited to, the following items:

1. Introduction of persons attending the meeting.
2. General project description, including length of contract and liquidated damages.
3. Key personnel associated with the construction (may include, but is not limited to the following):
 - CONTRACTOR's Project Manager
 - CONTRACTOR's Superintendent
 - OWNER's Project Manager
 - ENGINEER/ARCHITECT's representative
 - OWNER's Sponsor Department Representative.
 - Representatives of the various utilities.
4. Lines of communication and chains of command.
5. Wage and personnel records and reporting requirements.
6. Subcontractors and suppliers.
7. Submittal review and approval procedure. Submittals may include, but are not limited to the following:
 - Letter stating the name and qualifications of the CONTRACTOR's Superintendent
 - Letter(s) from the Subcontractor(s) listing their salaried specialists
 - If applicable, a letter designating the Registered Professional Land Surveyor
 - If applicable, a letter designating the Safety Representative (for general project safety) and the "Competent Person" for excavation safety
 - Excavation Safety Systems Plan
 - Schedule of Values
 - Schedule for submittals
 - Shop drawings
 - Construction schedule (The schedule shall indicate the phases of work in which subcontractors will be participating. Subcontractors shall be indicated by name.)
 - Payroll reports
 - Substitution of subcontractors
 - Non-use of asbestos materials affidavit
 - Appropriate safety training certificates for workers that will initially be on site

- Documentation for all workers initially on site who are governed by a prevailing wage classification as described in Section 00830.
 - Construction Equipment Emissions Reduction Plan
8. Job and traffic safety.
 9. Permits.
 10. Utility coordination report.
 11. Notification of property owners and other affected by the project
 12. Job meetings.
 13. Use of the site for construction, storage, staging, etc., and interrelationship with other contracts.
 14. Equal opportunity requirements.
 15. Laboratory testing of material requirements.
 16. Inventory of materials stored on site provisions.
 17. Progress estimate and payment procedure.
 18. Posting of signs.
 19. Project safety.
 20. Prompt payment procedure.
 21. Review of contract - addenda, supplementary general conditions, special provisions, special specifications, and other unique project items.
 22. Other

1.5 JOB MEETINGS

A. General

Job meetings shall be held as deemed necessary by the ENGINEER/ARCHITECT or OWNER or as requested by the CONTRACTOR throughout the duration of the Project. The meetings shall be held at a location selected by or approved by the Owner's Representative. The OWNER's REPRESENTATIVE or CONTRACTOR, as agreed to, shall preside over the meeting and issue meeting minutes.

B. Attendees

Job meetings will be attended by the following:

1. CONTRACTOR's Project Manager, when requested to attend.
2. CONTRACTOR's Construction Superintendent.
3. Any subcontractors' and/or suppliers' representatives whom the CONTRACTOR may desire to invite or whom the ENGINEER/ARCHITECT or OWNER requests to attend.
4. OWNER's REPRESENTATIVE
5. ENGINEER/ARCHITECT's representative(s), if needed or required.
6. OWNER's PROJECT MANAGER, if needed or required
7. OWNER's Sponsor Department representative(s), if needed or required.

C. Meeting topics

The topics will include, but not necessarily be limited to, the following subjects:

1. Review of previous meetings' notes and update of pertinent information and Project status.
2. Identification and discussion of new job related construction problems. Such discussion will be toward resolving identified problems.
3. Review work accomplished to date and establish proposed construction activities for the upcoming week(s).
4. Discuss the status of or need for change orders.
5. Check of required bonds and insurance certificates (including Workers' Compensation Insurance verification for CONTRACTOR's, Subcontractor's, and Sub-Subcontractor's employees as stated in Section 00700, General Conditions, 5.2 Workers' Compensation).
6. Status of pay requests.
7. Work in progress.
8. Review and update construction schedule including three week look ahead.
9. Review of submittals schedule and status of submittals.
10. Status of SMBR Compliance Plan.
11. Status of Safety Training certificates for all new workers on project.
12. Other.

1.6 OTHER MEETINGS

Other meetings shall be held from time to time as may be requested by the CONTRACTOR, the ENGINEER/ARCHITECT, or the OWNER. The time and place of the meetings shall be as mutually agreed upon. The attendance at the meetings shall be as requested by the party requesting the meeting.

END

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

The Contractor prepares submittals. Drawings and general provisions of Contract, including Section 00700, "General Conditions"; Section 00810, "Supplemental General Conditions"; Division 1 requirements and City of Austin Technical Specifications and Special Provisions thereto, should be used as the related documents for this requirement.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
1. Submittal Procedures.
 2. Contractor's construction schedule.
 3. Submittal schedule.
 4. Construction sequence plans.
 5. Shop drawings.
 6. Product data.
 7. Samples.
 8. Quality assurance and quality control submittals, including calculations, mix designs and substantiating test results.
 9. Engineer/Architects action.
 10. Preparation and submittal of construction redlines.
 11. Construction diaries.
 12. Request for Information (RFI) log.
 13. Change Order log.
 14. Asset Management tracking (IMD CIPASSETDATA spreadsheet)
- B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
1. Permits.
 2. Applications for Payment.
 3. Performance and Payment bonds.
 4. Insurance certificates.
 5. Monthly Subcontractors expense report.
 6. Non-use of asbestos affidavits
- C. Related Sections: The following Sections contain requirements that relate to this Section:
1. Section 00700, "General Conditions"; Section 00810, "Supplemental General Conditions"; and/or Division 1, Section 01025, "Measurement and Payment" specifies requirements for submittal of the Schedule of Values.
 2. Division 1, Section 01200, "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
 3. Section 00700, "General Conditions"; Section 00810, "Supplemental General Conditions"; and/or Division 1, Section 01700, "Contract Close-out" specifies

requirements for submittal of Project Record Documents and warranties at project close-out.

4. Section 00700, "General Conditions" Article 6.2.4 specifies requirements for Substitutes and "Approved Equal" Items.
- D. Technical Submittals: Technical information required to be submitted by the Standard Specifications, Special Provisions or Special Specifications.

PART 2 - PRODUCTS - not used

PART 3 - EXECUTION

3.1 SUBMITTAL PROCEDURES

Contractor shall be responsible for the following:

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals or resubmittals concurrently.
 - a. The E/A reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals. Refer also to disposition of submittals as noted herein.
 - a. Allow twenty-one (21) calendar days for initial review. Allow additional time if the Engineer must delay processing to permit coordination with subsequent submittals.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow twenty-one (21) calendar days for processing each resubmittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the E/A sufficiently in advance of the Work to permit processing.
 4. No portion of the Work requiring a shop drawing, sample or catalog data is to be started nor any materials be fabricated or installed prior to the approval or qualified approval of such item. Fabrication performed, materials purchased or on-site construction accomplished which does not conform to the approved shop drawings and data to be at CONTRACTOR's risk. The OWNER shall not be liable for any expense or delay due to corrections or remedies required to accomplish conformity.
 5. The review and approval of submittals by the E/A does not relieve the CONTRACTOR from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error and omission in submittals prepared by CONTRACTOR are assumed by the CONTRACTOR and the E/A shall have no responsibility therefore.
 6. All submittals including schedules, shop drawings, logs, sequence plans, product data, samples, QA/QC, technical, record drawings, diaries etc. shall be uploaded to the project File Transfer Protocol (FTP) site in specified folders site by the CONTRACTOR

as part of the submittal process. Large submittals shall include bookmarks as applicable.

7. All submittal data shall be provided in PDF searchable format.
 8. Provide submittal information defining specific equipment or materials utilized on the project. Generalized product information not clearly defining specific equipment or materials to be provided will be rejected.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
1. Provide a space approximately 4 inches by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 2. Include the following information on the label for processing and recording action taken.
 - a. Project name.
 - b. Date.
 - c. Name and address of the Contractor's Engineer.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
 3. The CONTRACTOR is to review shop drawings, product data and samples prior to submission to determine and verify the following.
 - a. Field measurements
 - b. Field construction criteria
 - c. Conformance with the Specifications
 4. Each shop drawing, working drawing sample and catalog data submitted by the CONTRACTOR to have affixed to it the following Certification Statement, signed by the CONTRACTOR:

"By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all Contract requirements."

All Submittals without the Certification Statement will not be reviewed and will be returned to the CONTRACTOR for proper submission.
 5. If proposed equipment or materials deviate from the Specifications, Drawings, or applicable codes in any way, clearly note the deviation and justify the said deviation in detail using the Deviation Request Form 01300.1 immediately following transmittal sheet. If explanation is not given, shop drawings may be returned without action. If deviations are not noted, CONTRACTOR assumes responsibility for corrective action.
 6. Provide the following for these types of submittals:
 - A. All:
 1. Coordinate and identify shop drawing contents so that all items can be easily verified by the Engineer.

2. Identify equipment or material use, tag number, drawing detail reference, weight, and other project specific information.
3. Provide sufficient information together with technical cuts and technical data to allow an evaluation to be made to determine that the item submitted is in compliance with the Contract Documents.
4. Submit items like equipment brochures, cuts of fixtures, product data sheets or catalog sheets. Indicate exact item or model and all proposed options.
5. Include legible scale details, sizes, dimensions, performance characteristics, capacities, test data, anchoring details, installation instructions, storage and handling instructions, color charts, layout drawings, parts catalogs, rough-in diagrams, wiring diagrams, controls, weights and other pertinent data. Arrange data and performance information in format similar to that provided in Contract Documents.

B. Shop Drawings:

1. Review notes on submittals shall use the following color coding to indicate comment author:
 - a. Manufacturer/Vendor comments shall be in blue.
 - b. Contractor comments shall be in green.
 - c. Engineer comments shall be in red.
2. A copy of the applicable specification in PDF format marked up by the Vendor/Manufacturer and the Contractor as follows:
 - a. In each place where the submitted equipment meets or exceeds the specification mark that section with a check mark.
 - b. In each place where the submitted equipment deviates from the specification, mark that section using yellow highlighting and include an explanation of the deviation as a comment.
 - c. In each place where the submitted equipment does not include a specified attribute, mark that section using an X.
 - d. Vendor/Manufacturer and Contractor shall initial the bottom of each page of the marked up specification.
 - e. An example of a typical marked up specification is included as Exhibit 01300.2 at the end of this Section.
3. Preparation by a qualified detailer is required.
4. Contract drawings shall not be reproduced and used as shop drawings.
5. Identify details by reference to sheet, detail numbers, and Specification Section, schedule or room numbers as shown on the Contract Drawings.

C. Product Data:

1. Modify the Manufacturer's standard schematic drawings to delete or supplement information as applicable.
2. For Manufacturers' catalog sheets, brochures, diagrams, schedules, performance charts, illustrations and other descriptive data:

- a. Clearly mark each copy to identify pertinent materials, products or models.
- b. Show dimensions and clearances required.
- c. Show performance characteristics and capacities.
- d. Show wiring diagrams and controls.
- e. Include on the data all information required for submission.

C. Number of Copies:

1. Four (4) hard copies and one electronic of the proposed Construction Schedule and subsequent revisions are required in Microsoft Project and PDF format specified by OWNER. CONTRACTOR must upload to the Owner provided FTP site in specified folders.
2. Four (4) hard copies and one electronic of the proposed Submittal schedule and subsequent revisions are required in searchable format specified by OWNER. CONTRACTOR must upload to the Owner provided FTP site in specified folders.
3. Nine (9) hard copies and one electronic of Shop Drawings, Product, Product Samples, Quality Assurance and Quality Control submittals are required in searchable format specified by OWNER. CONTRACTOR must upload to the Owner provided FTP site in specified folders.
4. One (1) one electronic of Shop Drawings, Product, Product Samples, Quality Assurance and Quality Control submittals are required in searchable format specified by OWNER. CONTRACTOR must upload to the Owner provided FTP site in specified folders.

D. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the E/A through the Owner's Representative using a transmittal form (Attachment 01300.3 is provided as an example) and upload to the project SharePoint site. The E/A will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
2. Restrict each letter of transmittal to only one Specification Section or portion thereof.
3. If the Transmittal Form covers more than one item or drawing provide a breakout description of each transmittal component on the Transmittal Form. Each component thus identified will be addressed on the Engineer's Submittal Review Form. Define item number, description of each item, Manufacturer, supplier, Drawing/Specification reference, and number of copies submitted.
4. Do not change the scope of any resubmittal from the original transmittal scope. Even if some of the components of the original transmittal were not commented on by the Engineer, resubmit all components in subsequent resubmittal packages. Contractor shall not use red color for marks on transmittals. Duplicate all marks on all copies transmitted, and ensure marks are photocopy reproducible. Outline Contractor marks on reproducible transparencies with a rectangular box.
5. Number transmittals in sequence for each Series of the Specifications thus: XXX-X or XXXXX-X. The number before the dash indicates the Section of the Specifications, and the number after the dash is the sequence number of the transmittal. For example, the first item submitted related to Specification Item No. 511 – Water

Valves and Section 11314 Submersible Sump Pumps would be respectively labeled **511-1 and 11314-1**, the second items submitted would be labeled **511-2 and 11314-2**, etc;. If the submittal item relates to a Special Provision or Special Specification, add "SP" before the section identifier. Identify resubmittals with a letter of the alphabet following the original sequence number, using "A" for the first resubmittal, "B" for the second resubmittal, etc. For example, the first resubmittal of the second item submitted for Specification SP510 would be labeled **SP510-2A**.

3.2 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Construction Schedule: As described in Section 2.4.2 of Section 00700 "General Conditions", prepare a fully developed Contractor's construction schedule ("Baseline Schedule") using Microsoft Project® software unless otherwise approved by Owner's Representative. Submit Baseline Schedule including MS Project source file prior to or at the preconstruction conference, and submit updated schedules and MS Project source file as specified by the E/A, usually at each regularly scheduled Project Meeting and with each pay application.
1. Detail each significant construction activity and use a weekly timeframe for the schedule. Use the same breakdown of units of the Work as indicated in the "Schedule of Values."
 2. With each update, revise task completion percentage and mark completed tasks.
 3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
 4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically the critical path items and the sequences necessary for completion of related portions of the Work.
 5. Indicate the phases of work in which subcontractors will be participating. Subcontractors shall be indicated by name.
 6. Coordinate the Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests, and other schedules.
 7. Indicate substantial completion in advance of the date established for Final Completion to allow time for the E/A's procedures necessary for certification of Substantial and Final Completion.
 8. Separate 3-week look ahead will not be permitted in-lieu of a fully revised project schedule.
 9. Schedule must include the following columns of information: % complete, Baseline Start, Baseline End, Baseline Duration, Actual Start, Actual Finish, and Actual Duration.
 10. The schedule shall be sequential and have the critical path highlighted with dependencies shown.
- B. Work Stages: Indicate important stages of construction for each major portion of the Work, including submittal review, testing, and installation.
- C. Cost Correlation: Within the Baseline Schedule, provide cost information indicating planned and actual costs. On the appropriate task line(s), show dollar volume of Work performed as of the dates used for preparation of applications for payment. Refer to

Section 00700, "General Conditions", Article 14 Payment to Contractor and Completion for cost reporting and payment procedures.

- D. Distribution: Following response to the Baseline Schedule submittal, distribute electronic copies to the E/A, subcontractors, suppliers, and other parties required to comply with scheduled dates. Keep a copy at the Project Site at all times.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- E. Schedule Updating: Revise the schedule after each meeting, event, or activity where revisions have been recognized or made and as requested by the E/A. Issue the updated schedule concurrently with the report of each meeting, or as requested by the E/A.
- F. Contractor shall provide a three week look ahead schedule in a format acceptable to the Project Manager at each Job Meeting as required in Section 01200 – Project Meetings.

3.3 SUBMITTAL SCHEDULE

- A. Concurrently with the development of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the initial Submittal Schedule along with the Construction Schedule, at, or prior to, the Pre-construction Conference.
1. Coordinate Submittal Schedule with the list of subcontractors, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.
 2. Prepare the schedule in order by specification division. Provide the following information not limited to:
 - a. Submittal number.
 - b. CONTRACTOR reference number.
 - c. Related Section number or Specification number.
 - d. Submittal category (Shop Drawings, Product Data, Calculations, Test Results, or Samples).
 - e. Description of the work covered.
 - f. Name of the Subcontractor.
 - g. Target due date.
 - h. Target date for completion of the E/A's review.
 - i. List the following information to be filled in later:
 - Actual Submittal Date.
 - Date Rec'd by ENGINEER.
 - Scheduled return date for completion of the E/A's review.
 - Number of days under review.
 - Reviewer.
 - Date sent to reviewer.
 - Date received from reviewer.
 - Verified against SPL (yes/no/NA)?
 - Accepted (A) or Rejected (R).
 - Action / Note.
 - Date returned to CONTRACTOR.
 - Days past original target submittal date.
 - Comments.
- B. Contractor's schedule of submittals will be reviewed to verify that the list of submittals provided is all inclusive and the schedule is reasonable and realistic for delivery of the project. Owner will provide a response to the Contractor based on the assessment of the schedule of submittals.

- C. Distribution: Upon Owner's agreement with the schedule of submittals, print and distribute copies to the Owner's Representative, E/A, Owner, subcontractors, suppliers, and other parties required to comply with submittal dates indicated. Keep copies at the Project Site at all times.
 - 1. When revisions or resubmittals are made, add the new resubmittal to the submittal schedule as a separate item using the nomenclature described in herein. Distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- D. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting, or as requested by the E/A.

3.4 CONSTRUCTION SEQUENCE PLANS

The Contractor is required to submit construction sequence plans to the City at, or prior to, the pre-construction conference for approval. The Project shall be divided into phases according to the sequence of construction given in the Drawings and Section 01015 – Construction Coordination and Sequencing. The Contractor shall arrange his/her work schedule to complete all Work in each phase before moving on to the next work area.

3.5 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, circle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
 - 1. Dimensions;
 - 2. Identification of products and materials included by sheet and detail number;
 - 3. Compliance with specified standards;
 - 4. Notation of coordination requirements; and
 - 5. Notation of dimensions established by field measurement.
 - 6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 inches by 11 inches but no larger than 24 inches by 36 inches.
 - 7. Do not use Shop Drawings without an appropriate stamp indicating action taken.

3.6 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, applicable certifications and performance curves.
 - 1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations;
 - b. Compliance with trade association standards;
 - c. Compliance with recognized testing agency standards;
 - d. Application of testing agency labels and seals;
 - e. Notation of dimensions verified by field measurement; and
 - f. Notation of coordination requirements.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
3. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
 - a. Do not proceed with installation until a copy of the final submission of Product Data is in the Installer's possession.
 - b. Do not permit use of unmarked copies of Product Data in connection with construction.
4. Potable Water, Reclaimed Water, and Wastewater Items or Projects: The Contractor shall submit descriptive information and evidence that the materials and equipment the Contractor proposes for incorporation into the Work is of the kind and quality that satisfies the specified functions and quality. **Austin Water Standard Products Lists (SPL)** are a part of the Specifications. Contractors shall use products specified in the Contract Documents, listed on the SPLs, or approved by AWU through the process in Section 2.4.0 of the Utilities Criteria Manual. Products contained in the SPL cannot be substituted for items shown on the Drawings, or called for in the specifications, unless approved by the E/A in conjunction with the Austin Water Utility Standards Committee. **Unless otherwise specified**, products current at the time of solicitation shall be installed except where an updated List has been issued to remove a product because of quality or performance issues.

3.7 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished when specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.
 1. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
 - a. Specification Section number and reference;
 - b. Generic description of the Sample;
 - c. Sample source;
 - d. Product name or name of the manufacturer;
 - e. Compliance with recognized standards; and
 - f. Availability and delivery time.
 2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
 - a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
 - b. Refer to other Specification Sections for requirements of Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
 - c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.

- d. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.
- 3. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 - b. Sample sets may be used by Owner for final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

3.8 QUALITY ASSURANCE AND QUALITY CONTROL SUBMITTALS

- A. Submit quality assurance and quality control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, materials test results, field testing and inspection reports, and other quality-control submittals as required under other Sections of the Specifications.
- B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a certification from the manufacturer or responsible Engineer certifying compliance with specified requirements.
 - 1. Signature: Certification shall be signed by an officer of the corporation or other individual authorized to sign documents on behalf of the company.
- C. Calculations: When required in the technical specification, calculations shall be prepared and stamped by a Professional Engineer registered in the State of Texas.
- D. Concrete, Controlled Low Strength Material, Asphalt Stabilized Base and Hot Mix Asphaltic Concrete Mix Designs and Substantiating Test Data: Requirements for submittal of mix designs and substantiating test data are specified in the applicable Technical Specification Section. Each separate batch plant supplying ASB, HMAC and/or concrete shall submit mix designs to the Owner's Representative for review.

3.9 ENGINEER/ARCHITECT'S ACTION

- A. Except for submittals, for the record, or for information where action and return is not required, the E/A will review each submittal, mark to indicate action taken, and return within the time frame specified herein.
 - 1. Compliance with specified characteristics is the Contractor's responsibility.
- B. Disposition of Submittals
 - 1. Transmittals received will be initially reviewed to ascertain inclusion of items as noted in forms 01300.4 and 01300.5 as well as Contractor's approval stamp. Submittals that are not administratively complete and/or not stamped by the Contractor or stamped with a stamp containing language other than that specified herein will not be reviewed for technical content and will be returned without any action.
- C. Action Mark: The E/A will mark the submittal appropriately to indicate the action taken, as follows:
 - 1. "Reviewed": the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2. "Reviewed with Comments": the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
 3. "Revise and Resubmit" or "Rejected": do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations and resubmit without delay. Repeat if necessary to obtain different action mark.
 - a. Do not use, or allow others to use, submittals marked "Revise and Resubmit" or "Rejected" at the Project Site or elsewhere where Work is in progress.
 4. Other Action: Where a submittal is for information, or for record purposes, or for special processing, or for other activity, the E/A will return the submittal marked "Record Copy" or "On Hold".
- C. Unsolicited Submittals: The E/A will return unsolicited submittals to the sender without action.

3.10 PREPARATION AND SUBMITTAL OF CONSTRUCTION REDLINES

The Owner's Representative and the Contractor's Superintendent will each maintain a set of redlines noting any changes in ink during construction of the Project. The Owner's Representative and the Contractor's Superintendent will compare redlines at least weekly (at a time mutually acceptable to both) to exchange information and compare notes to ensure all items installed and changes are documented. The following is a recommended minimum of items to be noted:

GENERAL

1. Notes should be sufficiently clear to allow a draftsman to easily make the necessary changes without the need for field checks and interpretation.
2. One complete set of Construction Record redlines will be submitted prior to the final pay request and forwarded to the Owner.
3. CONTRACTOR shall submit to the OWNER and upload an electronic copy to the SharePoint site of the redline drawings before final submittal to E/A.

STREET RECONSTRUCTION AND OVERLAY PROJECTS

1. Location, type, and quantity of all work added or deleted from the Project including repair areas, milled areas, sidewalk, ramps, curb and gutter, etc.
2. Deviations in street, sidewalk, curb and gutter location and grades from Drawings.

WATER/WASTEWATER PROJECTS

1. Type, name and model numbers of all valves (with # of turns to open/close), air release valves, drain and fire hydrants noted at locations installed.
2. Installed locations of all assignments, appurtenances and elevations which differ from those indicated on the Drawings.
3. Pipe manufacturer type and classification noted in sufficient detail to determine location and extent of each type or classification installed.
4. Modification to any standard or special details noted.
5. Location and description of pipe closures.
6. Thrust blocking locations and restrained pipe lengths, approximate dimensions and quantities noted.
7. Location, type and quantity of all addition and deletions.
8. Changes in grade.

The above list is not intended to be complete. Any information noted which could be used for future maintenance, location and construction projects is encouraged to be noted on the blueines.

3.11 CONSTRUCTION DIARIES

The Contractor shall prepare a daily construction diary recording as a minimum the following information concerning events at the site and submit duplicate copies to the Owner's Representative at weekly intervals. The copies are to be signed by the project Superintendent as defined in Section 00700, Article 6.1.2.

1. Work performed;
2. Approximate count of Contractor's personnel, by classification, on the site;
3. List by classification, of all Subcontractors, personnel and any professionals on the site that day;
4. List of all equipment on the site by make and model;
5. High and low temperatures together with general weather conditions;
6. Start time and finish time of day's work;
7. Accidents and / or unusual events;
8. Meetings and significant decisions made;
9. Stoppages, delays, shortages and / or losses;
10. Meter readings and / or similar recordings;
11. Emergencies procedures that may have been needed;
12. Orders and requests of governing authorities;
13. Change Orders received and implemented;
14. Services connected and / or disconnected;
15. Installed equipment and / or system tests and / or startups and results;
16. Partial completions and / or occupancies; and
17. Date of substantial completion certified;
18. Date of notice to proceed, duration, date of substantial completion, percent of time used;
19. At a minimum, six (6) digital photos with date stamped inside camera taken before start of work and after completion at appropriate times showing representative work, incorporated into the PDF diary (not provided separately).

3.12 REQUEST FOR INFORMATION (RFI) LOG

- A. The CONTRACTOR will be responsible for providing and updating a Request For Information (RFI) log throughout the project.
 1. Prepare the log in chronological order. Provide the following information not limited to:
 - a. RFI number.
 - b. Subject / Description.
 - c. Subcontractor involved.
 - d. Specification / Drawing referenced.
 - e. Date received from CONTRACTOR.
 - f. Date returned to CONTRACTOR.
 - g. Response / Resolution.
 - g. Number of days under review.
- B. Distribution: Following Owner's response to the initial submittal, print, upload the excel spreadsheet to FTP site and distribute copies to the Owner's Representative, E/A, Owner, Subcontractors, suppliers, and other parties. Keep copies at the Project Site at all times.
 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities."
- C. Processing: To avoid the need to delay installation as a result of the time required to process RFIs, allow E/A and Owner fourteen (14) days for review.
- D. RFI Log Updating: Revise the log after each meeting or activity where revisions have been recognized or made. Issue the updated log concurrently with the report of each meeting, or as requested by the E/A.

3.13 CHANGE ORDER LOG

- A. The CONTRACTOR will be responsible for providing and updating a Change Order Log throughout the project.
 - 1. Prepare the log in chronological order. Provide the following information not limited to:
 - a. Reference number.
 - b. RFP number.
 - c. Description.
 - d. SubCONTRACTOR involved.
 - e. Current status.
 - f. Date requested by OWNER.
 - g. Response from CONTRACTOR info: date, amount, and additional/deletion days.
 - h. Response to CONTRACTOR info: date, amount, and additional/deletion days.
 - i. Change Order number to be used for item.
 - j. Change Order information: date, amount, additional/deletion of days.
- B. Distribution: Following Owner's response to the initial submittal, print, upload the Excel spreadsheet to FTP site and distribute copies to the Owner's Representative, E/A, Owner, Subcontractors, suppliers, and other parties. Keep copies at the Project Site at all times.
 - 1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities."
- C. Change Order Log Updating: Revise the log after each meeting or activity where revisions have been recognized or made. Issue the updated log concurrently with the report of each meeting, or as requested by the E/A.

3.14 ASSET MANAGEMENT TRACKING (IMD CIPASSETDATA SPREADSHEET)

The Owner will provide asset tags for equipment and the CONTRACTOR will be responsible for affixing the tags on the equipment. The CONTRACTOR shall not affix asset management tags until Owner has accepted the installation.

The CONTRACTOR shall work with the ENGINEER and owner to complete and submit the Asset Management Tracking Form provided by the E/A. Asset management tag numbers along with warranty information shall be tracked using the form provided and submitted with the required information at the completion of the project. The electronic file as well shall be provided to the Owner as required by the Specifications.

3.15 ATTACHMENTS

See attachments 001300.1, 01300.2, 01300.3, 01300.4, and 01300.5

01300.4
Sample Marked-Up Specification

- ~~1. Rodney Hunt~~
- ~~2. Waterman~~
- ✓✓ 3. Whipp's Inc.

2.02 MATERIALS AND/OR EQUIPMENT

A. General

- ✓✓ 1. All materials used in the fabrication of slide gates shall be inherently corrosion resistant where exposed to wastewater as shown in gate schedule.
- ✓✓ 2. Minimum thickness of any structural member, including the wall thimbles, shall be 0.25 inches unless otherwise specified.
- ① 3. All welds shall be dip passivated or Sand blasted using Black Beauty Sand
- ✓✓ 4. Gates shall be designed for installation and operation to accommodate the clearances and limitations available in the proposed structure.
- ✓✓ 5. Field welding is not permitted.
- ✓✓ 6. The slide gates comply with AWWA C561.

B. Materials

- ② 1. Wall Thimble: Stainless steel, ASTM A276, Type 316/316L
- ✓✓ 2. Frame: Stainless steel, ASTM A276, Type 316/316L
- ✓✓ 3. Slide: Stainless steel, ASTM A276, Type 316/316L
- ✓✓ 4. Guides: Ultra-high-molecular-weight polyethylene (UHMWPE), ASTM D-4020
- ✓✓ 5. Side and Top Seals: UHMWPE, ASTM D4020
- ✓✓ 6. Stem Guide Liner: UHMWPE, ASTM D4020
- ✓✓ 7. Bottom Seal: Resilient neoprene, ASTM D2000 Grade 2 BC 510
- ✓✓ 8. Compression Cord: Nitrile, ASTM D2000 M6BG 708, A14, B14, E014, E034
- ✓✓ 9. Threaded Stem: Stainless steel, ASTM A276, Type 316/316L
- ✓✓ 10. Stem Couplings: Stainless steel, ASTM A276, Type 316/316L or Silicon Bronze, ASTM B584
- ✓✓ 11. Stem Guides: Stainless steel, ASTM A276, Type 316/316L
- ✓✓ 12. Fasteners: Stainless steel, ASTM F593 or F594 GR2
- ④ 13. Gasket (between frame and wall): EPDM
- ✓✓ 14. Lift Nut: Manganese bronze, ASTM B584, UNS-C86500.
- ✓✓ 15. Pedestal: Fabricated stainless steel, ASTM A276, Type 316
- ⑤ 16. Gears: AISI 4140.

C. Performance

- ✓✓ 1. Slide gates shall be substantially watertight under the design head conditions as shown in the Gate Schedule.
 - ✓✓ a. Under design seating head, leakage shall not exceed 0.05 gallons per minute per foot of seating perimeter.
 - ✓✓ b. Under design unseating head, leakage shall not exceed 0.05 gallons per minute per foot of seating perimeter.
- ✓✓ 2. The gate's sealing system shall have been tested through a cycle test in an abrasive environment and should show the leakage requirements are still obtained after 25,000 cycles with minimum deterioration. Documentation of testing shall be provided with submittal drawings.

- ✓✓ D. Wall thimbles

Legend

- ~~abc~~ Not applicable
- ✓ Vendor confirmed
- ✓ Contractor confirmed
- Deviation
- ① These are footnotes for exception comments that must be provided in the Deviation form.
- AB Reviewer initials

01300.3
SAMPLE TRANSMITTAL FORM

SUBMITTED FOR REVIEW

Project no. 3164.075 / AUST1500124
Project Name HB HEADWORKS IMPROVEMENTS

Date:
Submittal no.
Submittal Description

A transmittal is required for each spec section. DO NOT combine separate submittals from different spec sections.
A copy of the specification marked up by the Vendor/Manufacturer and the Contractor in accordance with Section 01300 is required with each equipment submittal. If there are ANY deviations from the Contract Documents, a Contract Document Deviation Request Form must be included with this submittal.

Contractor name	Contractor phone no.
Contractor address	Contractor email

SUBMITTAL TYPE

Product Data	Re-Submittal	Information	Comply with all submittal requirements per Section 01300 and with the spec section for which you are transmitting material.
Test Report	Shop Drawing	Quality Control/Assurance	
Design Data	Certificate	Contract Closeout	
	Samples	Other	

Item No.	Spec Section	Description

Vendor/Manufacturer Certification:

We have verified that all material or equipment contained in this submittal meets all the requirements specified .

Printed Name	Signature
--------------	-----------

We have verified that all material or equipment contained in this submittal meets all the requirements specified, with the exception of deviations shown on the attached Deviation Request Form.

Printed Name	Signature
--------------	-----------

Contractor Certification:

We have verified that all material or equipment contained in this submittal meets all the requirements specified .
We acknowledge that in accordance with Section 01 30 01 3.06, a re-evaluation fee can be assessed against our contract if this submittal requires more than one re-submission and additional review if the requirements have not been met.

Printed Name	Signature
--------------	-----------

We have verified that all material or equipment contained in this submittal meets all the requirements specified, with the exception of deviations shown on the attached Deviation Request Form.

Printed Name	Signature
--------------	-----------

SUBMITTAL REVIEW - Administratively Complete				STV Inc.
	OWNER:	City of Austin		
	PROJECT:	HB Headworks Improvements	JOB CODE:	AUST1500124
	CONTRACT:		SECTION:	
	CONTRACTOR:		SUBMITTAL NO.:	
	ENGINEER:	STV Inc.		
	TRANSMITTAL:			
COMPLIANCE SUBMITTALS HAVE BEEN REVIEWED FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AS MODIFIED BY ADDENDA, CHANGE ORDERS, AND FIELD ORDERS. REVIEW COMMENTS ARE EITHER NOTED DIRECTLY ON THE ENCLOSED SUBMITTAL OR BELOW AS A COMMENT.				
STATUS	REVIEW COMMENTS			
<input type="checkbox"/>	Missing specification reviewed and marked up by Manufacturer			
<input type="checkbox"/>	Missing specification reviewed and marked up by Contractor			
<input type="checkbox"/>	Deviation Request Form required but not included			
<input type="checkbox"/>	Manufacturer's standard information not marked to clearly identify information pertinent to this project			
<input type="checkbox"/>	Missing indication of equipment location on applicable plan sheet and/or tag number			
<input type="checkbox"/>	PDF is not a searchable document			
<input type="checkbox"/>	Missing bookmarks			
	BY:		DATE:	
This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the compliance submittal during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Review of a specific item does not include approval of an assembly of which the item is a component. This review does not imply acceptance of deviations not explicitly stipulated on the submittal cover.				
Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction, and coordination of the Work of all other trades; and for performing all Work in a safe and satisfactory manner.				

O&M Review - Administratively Complete	STV Inc.
---	----------

OWNER:	City of Austin	JOB CODE:	AUST1500124
PROJECT:	HB Headworks Improvements	SECTION:	
CONTRACTOR:		SUBMITTAL NO.:	
ENGINEER:	STV Inc.		
TRANSMITTAL:			

COMPLIANCE SUBMITTALS HAVE BEEN REVIEWED FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AS MODIFIED BY ADDENDA, CHANGE ORDERS, AND FIELD ORDERS. REVIEW COMMENTS ARE EITHER NOTED DIRECTLY ON THE ENCLOSED SUBMITTAL OR BELOW AS A COMMENT.

STATUS	REVIEW COMMENTS
<input type="checkbox"/>	Missing Table of Contents
<input type="checkbox"/>	Missing bookmarks
<input type="checkbox"/>	PDF is not a searchable document
<input type="checkbox"/>	Missing product identification by functional name and tag number in TOC and/or specific section
<input type="checkbox"/>	Missing equipment nameplates
<input type="checkbox"/>	Missing equipment performance curves
<input type="checkbox"/>	Missing installation and start-up instructions
<input type="checkbox"/>	Missing Name-Address-Phone No. of Manufacturer
<input type="checkbox"/>	Missing Name-Address-Phone No. of source of replacement parts nearest the Project Site
<input type="checkbox"/>	Missing detailed operating instructions for overall system and/or each assembly
<input type="checkbox"/>	Missing detailed written preventative maintenance instruction for each system and subassembly
<input type="checkbox"/>	Missing recommended spare parts list and life expectancy of each part
<input type="checkbox"/>	Missing explanations of safety considerations
<input type="checkbox"/>	Missing parts list showing parts and catalog numbers with exploded view showing interrelationship of parts
<input type="checkbox"/>	Missing a written explanation with illustrations as required for each preventive maintenance task
<input type="checkbox"/>	Missing a recommended schedule for execution of preventive maintenance tasks
<input type="checkbox"/>	Missing lubrication and other consumables charts, including rate of consumption and alternate lubricants
<input type="checkbox"/>	Missing troubleshooting instructions and diagnostic procedures
<input type="checkbox"/>	Missing list of required maintenance tools and equipment
<input type="checkbox"/>	Missing supplemental product data and written instructions to illustrate relations of component parts of equipment and systems and show control and flow diagrams. Contract Drawings shall not be used for maintenance drawings
<input type="checkbox"/>	Warranty is not in compliance with Specification requirements
<input type="checkbox"/>	Missing warranty - Section 01730 1.06.B.17
<input type="checkbox"/>	

BY:	DATE:
------------	--------------

This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the compliance submittal during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Review of a specific item does not include approval of an assembly of which the item is a component. This review does not imply acceptance of deviations not explicitly stipulated on the submittal cover.

Contractor is responsible for: dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction, and coordination of the Work of all other trades; and for performing all Work in a safe and satisfactory manner.

END																				
------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Division 1 General Requirements
SUSTAINABLE CONSTRUCTION REQUIREMENTS
Section 01352

Non-Building Project using Baseline Sustainability Criteria**PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A.** Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section. The requirements may or may not include reference to sustainability.

Language in each section provides detailed guidelines to inform the Contractor of appropriate performance requirements for specific materials and products. All Sustainable design, materials, products, and methods must meet the specifications as written unless otherwise approved by the Architect or Engineer.

Related Sections include the following Division 1 Sections:

1. Section 01300 Submittals.
2. Section 01505 Construction and Demolition Waste Management and Disposal.

1.2 SUMMARY

- A.** This Section includes general requirements and procedures for compliance with certain Sustainable Construction requirements.
1. Some Sustainability requirements are dependent on material selections and may not be specifically identified as sustainability requirements. Compliance with requirements may be used as one criterion to evaluate substitution requests.
 2. Additional Sustainability Construction requirements are dependent on design and other aspects of the Project that are not part of the Work of the Contract.
- B.** Related Sections: The contents of this Section are related to all Sections of these Specifications. Language in each section provides detailed guidelines to inform the Contractor of appropriate performance requirements for specific materials and products. All sustainable design materials, products, and methods must meet the specifications as written unless otherwise approved by the Architect or Engineer.

1.3 DEFINITIONS

- A. Certificates of Chain-of-Custody:** Certificates signed by manufacturers certifying that wood used to make products was obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria." Certificates shall include evidence that mill is certified for chain-of-custody by an FSC-accredited certification body.
- B. Regionally Manufactured Materials:** Materials that are manufactured within a radius of 500 miles (800 km) from the Project location. Manufacturing refers to the final assembly of components into the product that is installed at the Project site.
- C. Regionally Extracted, Harvested, or Recovered Materials:** Materials that are extracted, harvested or recovered and manufactured within a radius of 500 miles (800 km) from the Project site.

- D. Recycled Content:** The percentage by weight of constituents that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer).
- E.** Spills and scraps from the original manufacturing process that are combined with other constituents after a minimal amount of reprocessing for use in further production of the same product are not recycled materials.
- F.** Discarded materials from one manufacturing process that are used as constituents in another manufacturing process are pre-consumer recycled materials.
- E. Albedo:** The ratio of the amount of light reflected from a material to the amount of light shone on the material ranging from 0 (black) to 1 (white). As defined by the USGBC, a high albedo material has a reflectance of at least 0.3. Albedo is also known as solar reflectance or reflectivity.
- F. Heat island effect:** When warmer temperatures (from 6 - 10°F) are experienced in urban landscapes as a result of solar energy retention on constructed surfaces. Principle surfaces that contribute to heat island effect include streets, sidewalks, parking lots, and buildings. Also called "Urban Heat Island Effect."
- G. Post-consumer recycled content:** The percentage (by weight) of a reclaimed waste material contained in a product. A reclaimed waste material (e.g., newspaper, magazines, beverage containers, etc.) has already served a purpose to a consumer and has been diverted or separated from waste stream for recycling.
- H. Pre-Consumer Recycled Content:** Previously referred to as Post-industrial recycled content. The percentage (by weight) of a waste material obtained from industrial processes that is contained in a product.
- I. Recycled material:** A material that would otherwise be destined for landfill disposal but is diverted or separated from the waste stream, reintroduced as material feedstock, and processed into marketed end products.
- J. Reused Material:** Any item that is salvaged or reused without significant reprocessing as in a recycling process.
- K. Source reduction:** Minimization of waste at the start of a process or activity so that there is a reduced amount of waste to recycle or dispose. Also called precycling.
- L. Volatile Organic Compound (VOC):** A large family of chemicals based on carbon and hydrogen structures that vaporize at room temperature. VOCs are one type of indoor air contaminant. They are found in many indoor sources including common construction products and materials. Although thousands have been identified in indoor air, only a few are well understood and regulated. VOCs are considered unhealthful to humans - some individual VOCs are known or suspected human carcinogens or irritants to the eyes, nose, and mucous membranes. When released, VOCs can contribute to the formation of ground level ozone and smog. Formaldehyde and toluene are two examples of VOCs commonly found in construction materials.
- M. Xeriscape:** Quality landscaping that conserves water and protects the environment through its employment of seven principles: planning and design; soil analysis; appropriate plant selection; practical turf areas; efficient irrigation; use of mulches; and appropriate maintenance.

1.4 SUSTAINABILITY OBJECTIVES/GOALS

The City of Austin is committed to sustainability and expects the Project to reflect this commitment. The specific Sustainable (Design & Construction) goals for this project include:

1. Protection of the environment.
2. Limiting construction site area and disturbance of natural habitat and protection of trees and vegetation.
3. Reduction of waste created by construction activity through Source Reduction.
4. Increasing the use of materials and products with recycled content.
5. Chemically safe construction materials and pest management.
6. Construction materials that use less energy and create less pollution in manufacture, delivery, installation, renovation, and demolition.

1.5 SUBMITTALS

- A. General:** Submit additional Sustainability submittal requirements included in other sections of the Specifications.
- B. Sustainability submittals** are in addition to other submittals. If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with indicated requirements.
- C. Sustainable Construction Action Plans:** Provide preliminary submittals within 30 calendar days of date established for the Notice to Proceed indicating how the following requirements will be met.
1. Construction & Demolition Waste Management Plan complying with Division 1 Section 01505 "Construction and Demolition Waste Management."
 2. List of proposed salvaged and refurbished materials, identifying the source, and cost of each material.
 3. List of proposed materials with recycled content, indicating cost, post consumer recycled content, and pre-consumer recycled content for each product having recycled content.
 4. List of proposed regionally manufactured materials and regionally extracted, harvested, or recovered materials, identifying each regionally manufactured material and its source.
 5. List of proposed certified wood products, indicating source, and cost of each product. Indicate total cost for wood-based materials used for Project, including non-rented temporary construction.
- D. Sustainable Construction Progress Reports:** Concurrent with each Application for Payment, submit reports comparing actual construction and purchasing activities with Action Plans for the following:
1. Waste reduction progress reports complying with Division 1 Section 01505 "Construction & Demolition Waste Management and Disposal."
 2. Salvaged and refurbished materials.
- E. Sustainability Documentation Submittals:**
1. Comply with Division 1 Section 01505 "Construction and Demolition Waste Management."
 2. Receipts for salvaged and refurbished materials used for Project, indicating sources.
 3. Product Data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content. Include statement indicating costs for each product having recycled content.

4. Product Data indicating location of material manufacturer for regionally manufactured materials.
5. Product Data for rapidly renewable materials.
6. Documentation of lumber product/material qualifications:
 - a. Forest Stewardship Council chain-of-custody certificates documenting source of wood construction components and each point of purchase from forest from which the material was harvested to incorporation into the Project.
 - b. Certification of compliance with the Forest Stewardship Council "Principals and Criteria" for forest management.
 - c. Submit vendor/supplier invoices for each certified wood product containing product name, vendor name, product cost, certified wood percentage, Forest Stewardship Council chain-of-custody certification numbers on a line-item basis.

1.6 QUALITY ASSURANCE

- A. Sustainability Coordinator: Engage a responsible person on the construction team who is familiar with Sustainable practices and procedures. The Coordinator may also serve as the Waste Management coordinator.

PART 2 – PRODUCTS

Provide and maximize to the greatest extent economically feasible, a combination of salvaged, refurbished, recycled, regional materials and certified wood within the scope of the project.

2.1 RECYCLED CONTENT OF MATERIALS

- A. Provide construction materials with recycled content for a minimum of 10% of the total value of the project. Such that the sum of post-consumer recycled content plus one-half of the post-industrial is 10% of content of the materials in the project.
 1. The cost of post-consumer recycled content of an item shall be determined by dividing the weight of post-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.
 2. The cost of post consumer recycled content plus one-half of pre-consumer recycled content of an item shall be determined by dividing the weight of post-consumer recycled content plus one-half of pre-consumer recycled content in the item by the total weight of the item and multiplying by the cost of the item.

2.2 REGIONAL MATERIALS

- A. Provide regionally manufactured materials with a goal of achieving 10 percent of construction materials (by cost).

2.3 CERTIFIED WOOD

- A. Provide a minimum of 50 percent by cost of wood-based materials that are produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "Principles and Criteria for Forest Stewardship."
 1. Wood-based materials include but are not limited to the following materials when made from made wood, engineered wood products, or wood-based panel products:
 - a. Miscellaneous carpentry.
 - b. Heavy timber construction.

- c. Wood decking.
- d. Landscape and streetscape materials.
- e. Non-rented temporary construction, including bracing, concrete formwork, pedestrian barriers, and temporary protection.

PART 3 – EXECUTION

3.1 SITE DISTURBANCE

A. Special Site Practices:

1. Construction Activity Pollution Prevention: Comply with City of Austin standard requirements.
2. Protect and restore natural vegetation per division 1 Sections and plans.
3. Replace any removed or destroyed vegetation with equivalent species that are within City guidelines for native and adaptive plants.
4. Restrict construction activity only to defined site limits per plans and avoid activity and practices that would adversely affect environment, property, soils, vegetation and water courses.

3.2 CONSTRUCTION WASTE MANAGEMENT

- A. Comply with Division 1 Section 01505 "Construction and Demolition Waste Management."**

END

Division 1 General Requirements
CONSTRUCTION EQUIPMENT EMISSIONS REDUCTION PLAN
Section 01353

1. GENERAL

1.1. RELATED DOCUMENTS

- A. This Section applies to Drawings and all provisions of Contract.

1.2. SUMMARY – CONSTRUCTION EQUIPMENT EMISSIONS PLAN

- A. The OWNER, as part of the Council Resolution No. 20100211-019, has decided to take steps to reduce emissions associated with construction process including Nitrogen Oxides (NO_x), particulate matter and greenhouse gas. Construction activity is a source of large quantities of particulate matter and ozone forming Nitrogen Oxides that adversely affect the health of our community and the natural environment.
- B. The CONTRACTOR shall employ practices and take actions that reduce emissions from NO_x, particulate matter (black soot) and greenhouse gases resulting from activities associated with new construction and demolition Projects.
- C. The CONTRACTOR shall maximize the use of equipment and vehicles with advanced emission controls in support of the City's goals, utilizing equipment that meets defined EPA emissions standards.

1.3. DEFINITIONS

- A. "Construction Equipment" means equipment powered by an internal combustion engine and used for performing or otherwise advancing the Work on the Project, other than motor vehicles intended for use on public highways and registered pursuant to Section 502.002 of the Texas Transportation Code.
- B. The list of applicable Construction Equipment includes, but is not limited to excavators, backhoes, loaders, bulldozers, graders, rock saws, generators, and other similar equipment.
- C. "EPA" means the United States Environmental Protection Agency.
- D. "Low-Use Equipment" means any piece of construction equipment which is used for less than ten (10) hours per week on site for a single construction contract.
- E. "Greenhouse Gases" are emissions that absorb and emit radiation within the atmosphere. Greenhouse Gases can be one or a combination of, these gases: carbon dioxide, methane, nitrous oxide and three groups of fluorinated gases (sulfur hexafluoride, hydro fluorocarbons, and perfluorocarbons)

1.4. REQUIREMENTS – Not Used

1.5. SUBMITTALS

A. CONSTRUCTION EQUIPMENT EMISSIONS REDUCTION PLAN:

- 1. The CONTRACTOR agrees to prepare a draft Emissions Reduction Plan (referred to as PLAN) prior to start of construction. This PLAN shall include an inventory report

containing identifying data for each piece of equipment to be used on the worksite and shall include the following:

- Vehicle/Equipment: Make & Model Year
 - Vehicle/Equipment: Engine Make & Model Year
 - Vehicle/Equipment: Fuel Type
 - Vehicle/Equipment: Expected gallons or hours used for project duration
- a) The OWNER will provide Emissions Reduction Toolkit to help the CONTRACTOR in preparation of the PLAN and inventory.
2. The CONTRACTOR shall develop a list of strategies to be used in this Project in order to reduce emissions from NO_x, particulate matter and greenhouse gas (CO₂ equivalent). Once prepared, the agreed upon strategies shall be incorporated into the PLAN. The PLAN will then be signed by the CONTRACTOR and made ready for implementation. Implementation progress will be reviewed once a month in regularly scheduled project progress meetings. The PLAN may be modified during construction if changes are made to the Project, but adjustments shall be approved by the OWNER prior to implementation.
3. This PLAN may be used by the Owner's Representative or Inspector to conduct site inspections and/or verify compliance with specification elements.
4. If additional equipment is brought on-site after construction begins, the Contractor shall provide this same inventory information to the Owner's Representative for the new equipment on or before the day it begins work on-site. All additional equipment shall conform to the PLAN.
5. Reports shall be provided for all equipment used on-site.

B. EQUIPMENT EMISSIONS CLOSEOUT DOCUMENTATION:

1. Submit the following prior to final payment:
- a) Record of changes made to the original PLAN and reasons.
 - b) Provide a summary and documentation of strategies used and estimated reductions in fuel & emissions.
 - c) Provide documentation of amount and % of alternative fuel used.

2. PRODUCTS

Not used

3. EXECUTION

3.1. GENERAL

- A. Implement the submitted PLAN. Provide personnel, documentation, equipment, signage, transportation, and other items as required to implement the PLAN during the entire duration of the Contract.

3.2. EQUIPMENT EMISSIONS PLAN IMPLEMENTATION

- A. Plan Coordinator (Could be same as superintendent): Designate an on-site person responsible for instructing workers on the Owner's intent to reduce emissions, overseeing implementation and documenting results of the PLAN for the Project.

- B. Plan Review: Review the PLAN in monthly progress meeting and include comments in the meeting notes.
- C. Instruction: Provide on-site instructions to all subcontractors of emissions reduction methods to be used by all parties for the appropriate activities of the Project.
- D. Discuss Owner's goals and requirements at the following meetings:
 - 1. Pre-bid conference.
 - 2. Pre-construction conference.
 - 3. Progress meetings (monthly).

3.3 EQUIPMENT EMISSIONS REDUCTION TOOLKIT

- A. Equipment Emissions Reduction Toolkit available at:
 - 1. Website: (<http://austintexas.gov/department/capital-improvement-program>)
 - 2. City of Austin Public Works Department, Project Management Division, One Texas Center, Suite 900
 - 3. Construction Job Site Office (after contract award)
- B. Equipment Emissions Reduction Toolkit consists of:
 - 1. A list of Construction Equipment Emissions Reduction Strategies
 - 2. EPA fuel savings calculator by idling reductions
 - 3. Posting of Anti-idling signs
 - 4. Memorandum of Agreement by Local Area Governments
 - 5. Equipment Inventory Form

3.4 A LIST OF EQUIPMENT EMISSIONS REDUCTION STRATEGIES

The following are suggested emissions reduction strategies and references. As per the specification section 01353, 1.5 Submittals, the CONTRACTOR shall develop a list of strategies to be used in this Project at the start of construction.

C-1 Anti-Idling Strategies:

- 1. Implement and enforce anti-idling practices for all equipment and vehicles on and adjacent to the site and associated with the project. City will provide a construction site sign and stickers for vehicles and equipment. Add Hyperlink to COA Idling flyer location TBD

Also refer to:

<https://www.nctcog.org/trans/quality/air/for-everyone/engine-off-north-texas>

Another potential resource for the COA website on emission specifications:

<https://www.tceq.texas.gov/airquality/mobilesource/vehicleidling.html>

2. Limit all idling of project associated vehicles and equipment operations to five (5) minutes unless the idling is applicable to one or more of the following exceptions:
 - a) Idling is being used for emergency response purposes;
 - b) Idling is necessary for component of mechanical operation, maintenance, or diagnostic purposes; or
 - c) Idling is for the health or safety of the equipment operator.
3. Provide education to all staff, vendors and subcontractors about emissions hazards and anti-idling practices and encourage use of EPA calculator for fuel savings.
4. To the extent possible, do not stop or idle haulage trucks directly under tree limbs and foliage overhanging the street along the haul route. Further avoid such damage from truck exhaust by means of exhaust diversion devices to redirect or diffuse exhaust from being directed in a concentrated manner to tree limbs and foliage.
5. Avoid vehicle loitering or queuing outside or inside the gates of the work area to minimize degradation of localized air quality.

(<http://austintexas.gov/airquality/>)

C-2 Alternative Fuels:

6. Utilize **alternative fuels** including, Texas LED Compliant B20 (or higher) biodiesel, Compressed Natural Gas (CNG), propane and electric. (Refer to EPA Energy Policy Act for full list).
7. Avoid unnecessary fuel use by providing on-site fuelling for alternate fuels.

(<http://www.tceq.texas.gov/airquality/mobilesource/txled/cleandiesel.html>)

(<http://www.eere.energy.gov/cleancities>)

(<http://lonestarcfa.org>)

C-3 Vehicle/Equipment Improvements:

8. It is recommended that CONTRACTOR takes advantage of the **Texas Emission Reduction Plan (TERP)** grant incentives to upgrade (replace or repower) vehicles with retrofitted emission reduction technologies.
(<http://www.tceq.texas.gov/airquality/terp/index.html>) or (www.terpgrants.com)
9. Utilize **battery powered and/or solar powered equipment** where available. This strategy can be combined with anti-idling strategies by using this technology for sign boards. (evtransportal.org/dieselengineidlerreduction.pdf)
10. Consider using voluntary and mandatory sections of the City of Chicago Clean Diesel Program related to <https://www.chicago.gov/city/en/progs/env/clean-diesel.htmlfile:///C:/Users/user/Documents/Downloads/O2011-1418.pdf>
11. Consider an air quality training section administered by a governmental entity to help comply with an updated

COA Construction Equipment Emission Reduction Plan by using the California Air Resources Board (CARB) training section in the link below:

C-4 Maintenance Program:

1. Establish a preventative **maintenance program** addressing issues including but not limited to, fuel use, air emissions, tire pressure, smoke from exhaust and noise.
2. Make all efforts to **prevent oil/fuel spillage** on to site surfaces.

C-5 Resource Management:

3. Utilize equipment companies that are located closest to the construction site.
4. Store equipment on site during construction use or arrange for closest overnight storage including **temporary use of the Right of Way** if possible.
5. To the extent possible, CONTRACTOR shall maximize use of **local and regional materials** to reduce transportation emissions.
6. CONTRACTOR shall maximize **salvage and reuse** of appropriate on-site materials. (<http://www.usgbc.org/ShowFile.aspx?DocumentID=1095>)
7. To the greatest extent possible, stage equipment and vehicles away from, and minimize operation near, sensitive receptors including, but not limited to, operable windows, fresh air intakes, hospitals, schools, licensed day care facilities, residences and areas where people congregate.

END

Division 1 General Requirements
CONSTRUCTION PHOTOGRAPHY & VIDEOS
Section 01380

1. GENERAL

CONTRACTOR shall be responsible for producing pre-construction, construction progress and post-construction photographs as provided herein. Owner's Representative may also designate additional subjects for photographs in addition to the general guidelines identified below.

2. QUALITY

All photographs must be digital, high definition and in a format acceptable to the City. It is important that photos be in focus, the subject be clear and intentional, and lighting must be adequate so that all subject matter is visible and clear. Photos must be delivered in a digital format and OWNER may provide access to a cloud-based, project-specific location at which photos shall be uploaded at the frequency required herein.

Instructions on how to identify and name each photo will be provided by the OWNER.

Each photograph submittal must include a Photo Log that includes the name and CIP ID number of Contract, name of CONTRACTOR, the name of the photographer and company, photograph number, the date of the photograph and the filename that the camera assigns to the photo (e.g. MVC-001.jpg). In addition, appropriate descriptive information to properly identify the location of view must be entered into the Photo Log that includes a project drawing or sketch to assist in maintaining a concise project record (e.g. location of MH 5 - Line A or Sta. 2+00 - Line A or location of Sedimentation Basin 5, sludge pump A).

3. VIEWS AND QUANTITIES

3.1 PRE-CONSTRUCTION PHOTOGRAPHS

INFRASTRUCTURE FACILITIES (i.e. TREATMENT PLANTS, PUMP STATIONS, LIFT STATIONS, RESERVOIRS, ETC) OR BUILDING PROJECTS

All pre-construction photographs must be submitted prior to the CONTRACTOR or Subcontractor beginning any Work that may cause site disturbance and shall be submitted with the initial CONTRACTOR'S Pay Application. As a minimum, pre-construction photographs must be taken of the following views:

- The entire construction site area (full width and length)
- All curb lines showing all pre-existing curb damage not called for replacement within the Work and shall include major cracks
- All driveways, steps, and curbs and curb ramps (both sides of street adjoining the project site)
- Fence and gate conditions
- Trees, ornamental shrubs, plantings/planter boxes and evidence of irrigation features
- Views of structures, both inside and adjacent to the project site and easements in areas where CONTRACTOR will be working within five (5) feet of said structure
- Existing roof conditions
- Other views as requested by the OWNER

3.2. CONSTRUCTION PROGRESS PHOTOGRAPHS.

INFRASTRUCTURE FACILITIES (i.e. TREATMENT PLANTS, PUMP STATIONS, LIFT STATIONS, RESERVOIRS, ETC) OR BUILDING PROJECTS

Construction Progress photos must be taken at least twice per month.

One set of Construction progress photographs, as the work progresses, of the same views taken during pre-construction photography must be taken during the progress of the Work.

One set of the progress photos must be taken to depict the work accomplished during the month that includes:

- Work not yet covered up
- When MEP or building inspections are scheduled
- The beginning of installation of major items of equipment
- After installation of major items of equipment
- Other significant construction activities.

Both sets of photos shall be submitted monthly with the CONTRACTOR'S monthly progress payment application.

3.3 POST CONSTRUCTION PHOTOGRAPHS

Post-construction photographs must be taken of the same views taken during pre-construction photography to fully document the completed project. Post-construction photographs must be taken after cleanup and site restoration and must be submitted with the final payment.

3.4 ADDITIONAL ASSET PHOTOGRAPHS

INFRASTRUCTURE FACILITIES (I.E. TREATMENT PLANTS, PUMP STATIONS, LIFT STATIONS, RESERVOIRS, ETC)

Additional asset photographs shall be taken to show, identify and locate AW's assets (Position_IDs) as they are being installed as part of the work. The quantity of asset photos required is determined by the number of asset items added or improved to Infrastructure Management Department (IMD)'s data base as part of the construction of this project. A specific complete list of assets to be installed within this contract is identified in the Submittals Section of the Contract (Section 01300).

Each asset photograph shall be submitted in duplicate as two 3x5 prints with no more than 3 photos per page of professional quality enclosed in clear plastic sleeve within 3 ring folders. The prints shall be accompanied by digital date-stamped photographs in CD format or other format acceptable to the City.

Each print of the asset shall be marked with the following information:

- The CIP ID number for the Contract
- Name of CONTRACTOR
- AW IMD's asset number (Position_ID)
- The date of installation of the asset
- Location of asset (i.e. Sta. number, or State Plane Coordinate number, or other suitable information identifying where the asset was installed)

Each asset photograph must be included in an Asset Management Photo Log that indicates the AW IMD's asset number (Position_ID), the CIP ID number of Contract, name of CONTRACTOR, the date of the photograph and the filename that the camera assigns to the photo (e.g. MVC-001.jpg).

End

1. PART 1 – GENERAL

1.1. Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

2. PART 2 – PRODUCTS (NOT USED)

3. PART 3 – EXECUTION

3.1. Office at the Work Site (Job Shack)

During the performance of this Contract, CONTRACTOR shall maintain a suitable office at or near the site of the Work which shall be the headquarters of their superintendent. Any communication given to the Superintendent or delivered to CONTRACTOR's office at the site of the Work in his / her absence shall be deemed to have been delivered to CONTRACTOR. Security of this office shall be the responsibility of the CONTRACTOR. CONTRACTOR shall pay all electricity, heating and other bills required of maintaining the trailer and shall provide telephone services with a telephone as specified hereinafter.

In addition, CONTRACTOR shall provide at least 50 square feet of floor space partitioned off from their office at the site for use by Owner's Representative. The space shall have adequate heating, air conditioning, and lighting facilities. CONTRACTOR shall pay all electricity and heating bills for the space. The space shall be furnished with a desk, one four-drawer filing cabinets, one chair, a plan rack, and a locker for storage of surveying instruments. The doors on the locker shall be equipped for padlocking. The general arrangement of the space and facilities provided shall be acceptable to Owner's Representative.

3.2. Water for Construction

All water required for and in connection with the Work to be performed shall be furnished by and at the expense of the CONTRACTOR through meters installed on hydrants, except for water used in the "disinfection of potable water lines" process per Specification 510.3(29). All water used in the disinfection process shall not be metered, but rather shall be measured by calculation. Such water use does not require a meter, but a double-check valve assembly is required when connecting to a fire hydrant or a City main. CONTRACTOR shall submit a written plan for the disinfection process for review and approval by OWNER prior to commencing Work. The written plan shall include the CONTRACTOR's plan for final flushing and discharge of chlorinated water, and shall specify the quantities of potable water that will be required for the procedure and dosage plan proposed by the CONTRACTOR. Water used in the disinfection process shall be supplied by the OWNER through hydrants or connection through a City main at no charge to the CONTRACTOR for the initial disinfection procedure up to the quantities agreed to in the written plan for the disinfection process. Should the initial disinfection procedure fail to produce acceptable bacteriological sample test results, the cost of water at standard rates used for subsequent disinfection procedures shall be the responsibility of the CONTRACTOR with quantities determined through calculations.

For all water required for and in connection with the Work to be performed other than for the disinfection process, water and meters will be available from OWNER at standard rates. All costs for obtaining a water meter shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall contact the Austin Water Utility and arrange to pick up the meter. CONTRACTOR shall install a double-check valve assembly on the fire hydrant between the hydrant and the meter, to prevent backflow in the event of pressure failure. CONTRACTOR shall supply all necessary tools, hose and pipe, and shall make necessary arrangements for

securing and transporting such water and shall take water in such a manner, and at such times, that will not produce a harmful drain or decrease of pressure in the OWNER's water system. It shall be the CONTRACTOR's responsibility to make arrangements with the Austin Water Utility for the metering and reporting of the amount of water used. Water shall not be used in a wasteful manner. Standard hydrant wrenches shall be used for opening and closing of fire hydrants. In no case shall pipe wrenches be used for this purpose. Temporary lines shall be removed when no longer required.

"If applicable, after the installation of the City of Austin's water meter(s) for the Project, the CONTRACTOR has the option to utilize the water available from this service at the CONTRACTOR's expense. An adjustment to the Contract amount will be made by Change Order at the end of the Project for the costs incurred by the City of Austin for the water."

3.3. Telephone Service

CONTRACTOR shall make all necessary arrangements and pay all installation charges for telephone lines in their offices at the site and shall provide all telephone instruments. The telephone service shall be available to the Owner's Representative for toll free calls.

3.4. Sanitary Facilities

CONTRACTOR shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing Work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet shall be furnished for each 20 employees. CONTRACTOR shall enforce the use of such sanitary facilities by all personnel at the site.

3.5. Protection of Public and Private Property

CONTRACTOR shall protect, shore, brace, support and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by the CONTRACTOR's operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the easement/right-of-way. All replacements shall be made with new materials.

CONTRACTOR shall be responsible for all damage to streets, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property, which may be caused by transporting equipment, materials, or men to or from the Work, whether by him or their Subcontractors. CONTRACTOR shall make satisfactory and acceptable arrangements with the owner of, or the agency having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

3.6. Tree and Plant Protection

All trees and other vegetation which must be removed to perform the Work shall be removed and disposed of by the CONTRACTOR; however, no trees or cultured plants shall be unnecessarily removed unless their removal is indicated on the Drawings. All trees and plants not removed shall be protected against injury from construction operations.

No tree shall be removed outside of permanent easement(s), except where authorized by the E/A. Whenever practicable, CONTRACTOR shall tunnel beneath trees in yards and parking lots when on or near the line of trenching operations. Hand excavations shall be employed as necessary to prevent injury to

trees. Care shall be taken with exposed roots, unearthed during construction, so that roots do not dehydrate causing tree damage.

Trees considered by the E/A to have any significant effect on construction operations are indicated on the Drawings and those which are to be preserved are so indicated.

CONTRACTOR shall take extra measures to protect trees designated to be preserved, using methods shown on the Drawings and as specified in Standard Specification Item No. 610S "Preservation of Trees and other Vegetation".

3.7. Security

CONTRACTOR shall be responsible for protection of the site, and all Work, materials, equipment, and existing facilities hereon, against vandals and other unauthorized persons.

No claim shall be made against OWNER by reason of any act of an employee or trespasser, and CONTRACTOR shall make good all damage to the OWNER's property resulting from CONTRACTOR's failure to provide security measures as specified.

Security measures shall be at least equal to those usually provided by OWNER to protect existing facilities during normal operations, and shall also include such additional security fencing, barricades, lighting, and other measures as required to protect the site. When required, the CONTRACTOR shall provide a security plan to the OWNER for review as to appropriateness of the security measures proposed.

3.8. Access Roads

CONTRACTOR shall establish and maintain temporary access roads to various parts of the site as required to complete the Project. Such roads shall be available for the use of all others performing Work or furnishing services in connection with the Project.

3.9. Parking

CONTRACTOR shall provide and maintain suitable parking areas for the use of all construction workers and others performing Work or furnishing services in connection with the Project, as required, to avoid any need for parking personal vehicles where they may interfere with public traffic, the OWNER's operations, or construction activities.

3.10. Dust Control

Dust Control during construction of this Project shall conform to Standard Specifications Item No. 220S, "Sprinkling for Dust Control". No direct payment will be made for dust control. Dust Control shall be considered subsidiary work relating to various Bid items of the Contract.

3.11. Temporary Drainage Provisions

CONTRACTOR shall be responsible for providing for the drainage of stormwater and such water as may be applied or discharged on the site in performance of the Work. CONTRACTOR shall obtain E/A approval for temporary drainage facilities which will handle, carry through, or divert around their Work all drainage flow, including storm flow and flows created by construction activity, to prevent silting of waterways or flooding damage to the property and adjacent property.

3.12. Erosion Control

CONTRACTOR shall prevent erosion of soil on the site and adjacent property resulting from their construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations which will disturb the natural protection.

CONTRACTOR shall use controls found in "Environmental Criteria Manual" or developed from successful techniques elsewhere as approved by E/A.

3.13. Pollution Control

CONTRACTOR shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and the substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures shall be taken by CONTRACTOR to prevent such materials from entering any drain or watercourse.

CONTRACTOR shall observe the rules and regulations of the State of Texas and agencies of the U.S. Government prohibiting the pollution of any lake, stream, river, or wetland by the dumping of any refuse, rubbish, dredge material, or debris therein.

CONTRACTOR is specifically cautioned that disposal of materials into any water of the State must conform to the requirements of the Texas Commission on Environmental Quality (TCEQ), and any applicable permit from the U.S. Army Corps of Engineers.

3.14. Noise Control

CONTRACTOR shall comply with the City of Austin's Noise Ordinance. CONTRACTOR shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound level in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

3.15. CIP Sign

CONTRACTOR shall erect install and maintain CIP signs as specified. Signs shall be constructed in accordance with City Standard Specification Item No. 802S "Project Signs," as indicated on the Drawings.

3.16. Fences

All existing fences affected by the Work shall be maintained by the CONTRACTOR until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. Where fences must be maintained across any construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

Upon completion of the Work across any tract of land, CONTRACTOR shall restore all fences to preconstruction, or to a better, condition and to their preconstruction location.

3.17. Mail Boxes

CONTRACTOR shall remove, reset temporarily, and relocate permanently all mail boxes that are within construction site limits conforming to requirements of United States Postal Service. Mailboxes shall not be laid on the ground, but shall be temporarily reset the same day as removed. Payment for removing and resetting of mail boxes will not be paid for directly, but will be considered subsidiary to the various Bid items. Any damage to mail boxes or posts shall be the responsibility of the CONTRACTOR.

3.18. Emergency Facilities

Free access shall be maintained at all times to fire lanes and emergency and utility control facilities such as fire hydrants, fire alarm boxes, police call boxes, and utility valves, manholes, junction boxes, etc. In the event that it is necessary to make one of these facilities temporarily inaccessible, CONTRACTOR shall obtain approval of such action and schedule of Work from the OWNER. CONTRACTOR shall also provide at least 24 hours prior notice to the Fire Department, Police Department, and City Department governing the affected utility. The same Department(s) shall be promptly notified by the CONTRACTOR when such facilities are placed back in unobstructed service.

3.19. Notification of Owners

Unless otherwise indicated, the OWNER will notify property owners abutting the right-of-way of impending construction. The CONTRACTOR shall exercise diplomacy and tact with individual property owners.

3.20. Maintenance of Traffic

CONTRACTOR shall conduct their Work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks whether public or private, the CONTRACTOR shall provide and maintain suitable safe bridges, detours or other temporary measures to accommodate public and private travel, and shall provide reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when CONTRACTOR has obtained written permission from the owner and the tenant of the private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point. A copy of the initial written permission shall be provided to the Owner's Representative.

Safety and conveyance of traffic shall be regarded as prime importance. Unless otherwise directed, all portions of streets associated with this Project shall be kept open and provided a dust free, smooth and comfortable ride to traffic. It shall be the responsibility of the CONTRACTOR to ensure that two-way traffic may safely bypass the construction site and that access is provided to abutting private property. In making open cut street crossings, the CONTRACTOR shall not block more than one-half of the street at one time without approval of the OWNER. Whenever possible, CONTRACTOR shall widen the shoulder on the opposite side to facilitate traffic control. Temporary surfacing shall be provided as necessary on shoulders.

Prior to beginning Work, CONTRACTOR shall designate, in writing, a competent person who will be responsible and available on the Project site, or in the immediate area, to ensure compliance with the traffic control plan. CONTRACTOR shall provide documentation to demonstrate the sufficient training in Traffic Control for their competent person. Owner will designate a qualified person to observe implementation and who will have authority to assure compliance with the traffic control plan.

The CONTRACTOR shall perform the necessary cleanup and finishing immediately after all or a portion of the Work is completed. When the Work includes paving operations, the entire site shall be kept clean to facilitate placement of required traffic control devices. Temporary and permanent striping lay-out shall be approved by the Transportation Department prior to placement, when included in the Work.

3.20.1. Detours

Where indicated on the traffic control plan CONTRACTOR shall erect and maintain detours around construction activities. Should CONTRACTOR desire to propose a detour, not already included in the traffic control plan, it shall be their responsibility to prepare a revised traffic control plan showing the detour, and obtain approval of the revised traffic control plan from the Transportation Department, prior to implementation of the detour. The Transportation Department has final authority as to the acceptability of any proposed revisions to the traffic control plan. The CONTRACTOR shall bear all costs for revising the traffic control plan and for maintaining the proposed detour.

3.20.2. Barricades and lights

CONTRACTOR shall place and maintain in good condition, standard barricades at each end of the Project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Barricades and warning signs shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (MUTCD) and City of Austin Standard Specification Item No. 803S, "Barricades, Signs and Traffic Handling". Signs, barricades, and warning devices informing the public of construction features will be placed and maintained by the CONTRACTOR, who shall be solely

responsible for their maintenance. The decision to use a particular device at a particular location as indicated in the traffic control plan or as determined by the CONTRACTOR, shall be the sole responsibility of the CONTRACTOR.

All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions, such as material piles and equipment shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on, or along side, public streets and highways shall cause a minimum obstruction and inconvenience of the traveling public.

3.21. Required Job Site Postings and Notices

CONTRACTOR shall post the following postings and notices in English and Spanish at one or more conspicuous locations on the job site. In the case of Projects with multiple sites, the notices and postings must be displayed at each site. In the case of Projects that do not have a job shack or other temporary facility on the site, CONTRACTOR shall post all notices on a temporary bulletin board. Other special conditions are noted below.

Required for all Projects	
<i>Poster</i>	Available at:
Baseline Schedule for Project identifying when all subcontractors will be used	N/A (as required under Section 00700, paragraph 2.4.2.1.)
Wage Rates as required under Section 00830.	Section 00830BC and/or Section 008300HH
City of Austin Wage Contact posters	Provided at Pre-Construction meeting (English and Spanish)
City of Austin Equal Employment Opportunity posters	http://austintexas.gov/department/wage-compliance (English and Spanish)
Texas Commission on Environmental Quality "Construction Site Notice" form, if applicable, as required or the required TPDES information	https://www.tceq.texas.gov/downloads/permitting/stormwater/forms-tools/20964.pdf (Small Construction site) https://www.tceq.texas.gov/downloads/permitting/stormwater/forms-tools/20961.pdf (Large Construction site) (Option 1 – as required under Section 00810, 6.7.4.2) N/A (Option 2 – as required under Section 00810, 2.6.7.4.3)
OSHA poster "Job Safety and Health: It's the Law"	https://www.osha.gov/sites/default/files/publications/osha3165.pdf (English) https://www.osha.gov/sites/default/files/publications/osha3167.pdf (Spanish)
City of Austin Rest Break Ordinance Signs	https://www.austintexas.gov/sites/default/files/files/Contract_Management/Rest_Break_Ordinace_posters.pdf (English and Spanish) As required to be posted in English and Spanish under Ordinance No. 20100729-047
Texas Payday Law Poster	https://www.twc.texas.gov/sites/default/files/fdcm/docs/payday-law-poster-wh-10-twc.pdf (English) https://www.twc.texas.gov/sites/default/files/fdcm/docs/payday-law-poster-spanish-wh-10-twc.pdf (Spanish)
Texas Workers Compensation notice that the employer does	Does <u>not</u> carry Workers Compensation Insurance: https://www.tdi.texas.gov/forms/dwc/notice5.pdf (English) https://www.tdi.texas.gov/forms/dwc/notice5s.pdf (Spanish) https://www.tdi.texas.gov/forms/dwc/notice5v.pdf (Vietnamese)

or does not carry Workers Compensation insurance	<u>Does</u> carry Workers Compensation Insurance: https://www.tdi.texas.gov/forms/dwc/notice6.pdf (English) https://www.tdi.texas.gov/forms/dwc/notice6s.pdf (Spanish) https://www.tdi.texas.gov/forms/dwc/notice6v.pdf (Vietnamese)
TWC Employer’s Notification of the Ombudsman Program to Employees	https://oiec.texas.gov/documents/employernotice.pdf (English) https://oiec.texas.gov/documents/employernoticesp.pdf (Spanish)
DOL – The Uniformed Services Employment and Reemployment Rights Act (USERRA)	http://www.dol.gov/vets/programs/userra/USERRA_Private.pdf (English) https://www.dol.gov/sites/dolgov/files/VETS/files/USERRA-Poster-Spanish-Language.pdf (Spanish)
“Know Your Rights: Workplace Discrimination is Illegal” formally known as: EEOC Equal Employment Act and the Americans with Disabilities Act (ADA)	https://www.eeoc.gov/sites/default/files/2023-06/22-088_EEOC_KnowYourRights6.12.pdf (English) https://www.eeoc.gov/sites/default/files/2023-06/22-088_EEOC_KnowYourRightsSp6.12.pdf (Spanish) https://www.eeoc.gov/poster (additional language options available)
Fair Labor Standards Act (FLSA) Minimum Wage Poster	https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/minwagep.pdf (English) https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/minwagesp.pdf (Spanish)
If applicable: Employee Rights for Workers with Disabilities/Special Minimum Wage Poster – Employment Standards	http://www.dol.gov/whd/regs/compliance/posters/disabc.pdf (English) http://www.dol.gov/whd/regs/compliance/posters/disabspanc3p.pdf (Spanish)
“Your Rights Under the Family and Medical Leave Act (FLMA)”	http://www.dol.gov/whd/regs/compliance/posters/fmlaen.pdf (English) http://www.dol.gov/whd/regs/compliance/posters/fmlasp.pdf (Spanish)
Title VI Rights Poster	https://www.austintexas.gov/sites/default/files/files/Capital%20Contracting/Bid%20Docs/Title%20VI.pdf (English and Spanish)
Additional Postings Required for Federally Funded Projects	
“Employee Rights Under the Davis-Bacon Act”	http://www.dol.gov/whd/regs/compliance/posters/fedprojc.pdf (English) http://www.dol.gov/whd/regs/compliance/posters/davispan.pdf (Spanish)
Applies to USDOT/FHWA funded projects: “Notice of False Statements Concerning Highway Projects”	https://www.fhwa.dot.gov/programadmin/contracts/fhwa1022.pdf (English) https://www.fhwa.dot.gov/programadmin/contracts/fhwa1022spa.pdf (Spanish) (as required in Section 00810A Standard Federal-Aid Assurances)
Applies to USDOT/FHWA funded projects; “Contractors EEO Policy”	N/A (as required in Section 00810A Standard Federal-Aid Assurances)

END

Division 1 General Requirements
CONSTRUCTION AND DEMOLITION WASTE
MANAGEMENT
Section 01505

Non-Building Projects using Non-Building Baseline Sustainability Criteria (Minimal Waste)

PART 1 – GENERAL

1.1 Related Documents

1. Division 01 Section 01200 "Project Meetings"
2. Division 01 Section 01500 "Temporary Facilities"
4. Division 01 Section 01710 "Final Cleaning"
5. Division 02 Section "Selective Demolition"
6. Division 01 Section 01352 "Sustainable Construction Requirements"

1.2 SUMMARY

- A.** The Owner has established that the Project shall minimize the creation of construction and demolition waste on the Project site and shall recycle and/or salvage non-hazardous construction, demolition, and land clearing debris to divert waste from Landfills.
1. Contractor shall minimize factors that contribute to waste such as over packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination.
 2. Contractor shall reuse, salvage, or recycle as many of the non-hazardous waste materials as economically feasible.
 3. All profits resulting from salvaging and recycling shall go to the Contractor.
 4. Where there is little to no cost difference between recycling/salvaging and land-filling of items, the Contractor is directed to recycle/salvage.
- B.** Hazardous materials are an exception to this Section. Comply with applicable requirements of Local, State and Federal regulations.
- C.** This Section includes administrative and procedural requirements for recycling, salvaging and disposing of non-hazardous demolition and construction waste

1.3 REFERENCES

- A.** The standards listed below form a part of this Section to extent referenced. Standards are referred to in the text by basic reference only.
1. Sustainable Building Sourcebook – Austin Energy Green Building; www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/Sourcebook/constructionWasteManagement.htm
 2. Resource Exchange Network for Eliminating Waste (RENEW), TCEQ (MC-112), Biannual catalog lists materials available and wanted; serves Texas and surrounding states; lists are posted on the Internet: <http://www.tceq.state.tx.us/assistance/P2Recycle/renew/renew.html>

3. Recycle Texas Online, A service of the Texas Commission on Environmental Quality. Contains information on about 1000 businesses and local governments handling materials from Texas. Organizations' information is self-reported and listings are free of charge. www.tceq.state.tx.us/assistance/P2Recycle/rtol/rtol.html
4. "WasteSpec", Triangle J Council of Governments, Research Triangle Park, NC 27709, (919) 549-9390.

1.4 DEFINITIONS

- A.** Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals, and inorganic wastes.
- B.** Clean: Untreated, unpainted, not contaminated with oils, solvents, caulk, or other materials.
- C.** Disposal: Acceptance of solid wastes at legally permitted and operating facility for the purposes of land-filling.
- D.** Diversion: Avoidance of demolition and construction waste sent for disposal to landfill or incineration. Diversion does not include using materials for landfill, alternate daily cover on landfills, or materials used as fuel in waste-to-energy processes.
- E.** Hazardous Waste: Byproducts of society that can pose a substantial or potential hazard to human health or the environment when improperly managed, and possessing at least 1 of 4 of the following characteristics, or appearing on a special Environmental Protection Agency (EPA) list.
 1. Ignitability.
 2. Corrosivity.
 3. Reactivity.
 4. Toxicity.
- F.** Landfill: Authorized land waste disposal site that is located to minimize waste pollution from runoff and leaching.
- G.** Recycling: The process of sorting, cleansing, treating, and reconstituting solid waste and other discarded materials for the purpose of using the altered form. Recycling does not include burning, incinerating, or thermally destroying waste.
- H.** Return: To give back reusable items or unused products to vendors for credit.
- I.** Reuse: A strategy to return materials to active use in the same or a related capacity.
- J.** Salvage: To remove a waste material from the Project site to another site for resale or reuse by others.
- K.** Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become a waste.
- L.** Toxic: Poisonous to living beings either immediately or after a long period of exposure.
- M.** Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- N.** Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes all materials removed from the Project site to be land-filled, recycled, or salvaged for reuse. Pallets, containers, packaging and packing materials in which construction products are delivered to the Project site are considered waste materials.

1.5 WASTE MANAGEMENT GOALS

- A. The Owner has established that at least 50% of the “waste” materials produced as a result of the Work, shall be employed, salvaged, reused, or recycled in order to minimize the impact of construction and demolition waste on landfills and reducing disposal costs.
- B. Contractor shall employ and encourage practices that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors.
- C. Contractor is responsible for knowing and complying with regulatory requirements, including but not limited to Federal, State and local laws and regulations, pertaining to legal disposal of all construction waste materials.
- D. Contractor shall recycle and divert materials for secondary uses whenever economically feasible.
- E. Acceptable methods of diversion include:
 - Recycling, reuse and salvage
 - Donation to nonprofit organizations
 - Removal from jobsite by staff or subcontractors for use (not disposal)
 - Return to supplier
 - Sale to organizations or individuals
- F. The Contractor shall develop a Construction and Demolition Waste Management Plan that results in end-of-Project rates for recycle and/or salvage of at least 50% of non-hazardous construction and demolition waste. The plan shall identify the materials to be diverted from disposal and define the materials to be separated on-site or off-site. Calculations can be done by weight or volume, but must be consistent throughout.

1.6 SUBMITTALS

- A. **Waste Management Plan:** A Project-specific plan for the collection, transportation, and disposal of the waste generated at the construction site, shall be submitted for approval within 14 calendar days after date of the Notice to Proceed, or prior to any waste removal, whichever occurs first. The approved Plan shall be distributed to all subcontractors and the owner and will not relieve the Contractor’s responsibility for compliance with applicable environmental regulations.

An example template is included as “Appendix A” to this section.

- 1. The Waste Management Plan shall include the following:
 - a. Identify each type of waste material produced as a result of the Work on the Project Site.
 - b. Identify each type and quantity of demolished and waste material intended to be recycled, salvaged or reused.
 - c. Identify material separation requirements.
 - e. Identify location of temporary on-Site storage for recycled and reused materials.
 - f. Identify final destination means of transportation for each recycled and reused material.
 - h. Identify the name/phone number of the Contractor’s on-site coordinator of the Waste Management Plan.

- i. Indicate permit or license and the location of the municipal solid waste landfills and other disposal area(s) to be used.
- j. List of materials that cannot be recycled or reused.

B. CWM Closeout Documentation: Submit the following upon the completion of The Work and prior to final payment:

- a. A Summary of Solid Waste Disposal and Diversion (refer example template "Appendix B") prepared and maintained through Project duration, demonstrating that 100% of all non-hazardous construction wastes were recycled, salvaged or disposed of properly and includes as a minimum the following information:
 - 1. Dates
 - 2. Materials Description
 - 3. Materials Quantity
 - 4. Indicate whether recycled, salvaged, reused or sent to landfill for disposal.
 - 5. Name and location of accepting facility.
 - 6. Destination
- b. Copies of all receipts, manifests, weight tickets, and other documentation that identify all materials recycled, salvaged, land-filled or incinerated.

PART 2 - PRODUCTS

Not used

PART 3 – EXECUTION

3.1 GENERAL

- A.** Implement the Waste Management Plan as approved by the City of Austin Project Manager. Provide handling, containers, storage, signage, transportation, and other items as required to implement Waste Management Plan during the entire duration of the Contract.
- B.** Satisfy the requirements outlined in Subsection 1.5, Waste Management Goals.

3.2 WASTE MANAGEMENT PLAN IMPLEMENTATION

- A.** Plan Coordinator: Designate an on-site party (or parties) responsible for instructing workers, overseeing implementation and documenting results of the Waste Management Plan for the Project.
- B.** Plan Distribution: Provide copies of the Waste Management Plan to the Contractor's superintendent, each Subcontractor, the Owner, and the Engineer.
- C.** Meetings: Include Construction Waste Management in progress meetings to maintain the Plan for achieving the owners waste management goals:
- D.** Carefully order materials to avoid over supply.
- E.** Protect materials from contamination during handling, storage and transport to meet the requirements of the accepting facilities.
- F.** The Contractor shall assign and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, return and disposal. This area shall be kept neat and clean and clearly marked in order to avoid contamination of materials.

3.3 RECYCLING REQUIREMENTS

- A.** Materials: In general, the following types of construction waste materials generated during the course of this project that are not salvaged shall be recycled:
- a. Asphalt concrete pavement.
 - b. Concrete materials.
 - c. Metals, including the following.
 - i. Banding straps.
 - ii. Reinforcing steel.
 - iii. Iron.
 - iv. Brass and bronze.
 - v. Lead.
 - vi. Extruded aluminum.
 - vii. Aluminum sheet.
 - viii. Stainless steel sheet.
 - ix. Steel studs.
 - x. Copper pipe.
 - xi. Steel pipe.
 - xii. Galvanized steel pipe.
 - d. Clean dimensional lumber.
 - e. Wood crates and pallets.
 - f. Glass and glass containers.
 - g. Plastics.
 - h. Plumbing fixtures.
 - i. Electrical conduit.
 - j. Electrical wiring.
 - k. Cardboard, paper, and packaging.
 - l. Beverage containers.
- B.** Methods: The following recycling methods, or a combination of, may be used.
- 1. On-site separation: Each material to be recycled shall be separated at the Project site and delivered to the recycling markets or directly from the Project site.
 - a. If on-site separation method is used, designate a specific area or areas to facilitate separation of materials for potential reuse, salvage, recycling, and return.
 - b. Maintain recycling and waste bin areas neat and clean and clearly marked, both in Spanish and in English, in order to avoid co-mingling of materials.
 - c. Protect materials from contamination.
 - 2. Off-site separation: Materials to be recycled are delivered unsorted from the Project site to a materials recovery facility or transfer station where recyclable materials are separated from other waste.
 - a. Contractor shall verify that the entity responsible for the off-site separation has a market for all materials required to be recycled from the Project site.
 - b. The same Submittals procedures shall apply.

- c. Protect materials from contamination.

3.4 REUSE

- A.** Contractor is encouraged to reuse as many demolished and waste materials as possible.
- B.** Reuse of waste materials includes the following:
 - a. Salvaging materials scheduled for disposal.
 - b. Off-Site storage of waste materials for future reuse by Contractor on other projects.
 - c. Returning unused and reusable materials, packaging and pallets, to vendor.
 - e. Assemble designated reuse items in a single location safe from damage, for review and approval by the owner's representative.

3.5 SALVAGE

- A.** Salvage materials as identified on the Engineering Plans.
- B.** Salvage Guidelines:
 - 1. The contractor shall salvage as many items as deemed economically possible, considering reduction of land filling fees and possible use by others.
 - 2. Assemble potentially salvageable items in one area and donate or sell to the public after review by the City of Austin Project Manager.
 - 3. All proceeds from the sale of salvaged items shall go to the contractor.

Appendix A. Sample Construction Waste Management Plan

Construction Waste Management Plan

Project:
Contractor:
Date:
Contact:
Phone:
Prepared by:

Diversion Goal: Recycle, reuse and/or salvage at least 50% (by weight or volume) of land-clearing and construction waste

I. Coordination and Training

- a. Name of Contractor's representative responsible for CWM implementation & coordination.
- b. Describe method(s) of waste recycling management – on-site and/or off-site.
- c. Describe how Contractor's staff and subcontractors will be informed regarding proper recycling and separation procedures
- d. Describe and/or show on an attached site map where the temporary waste material storage area(s) will be located, and how will contamination of separated waste materials will be prevented?

II. Waste Minimization

- a. What waste minimization techniques will be employed during the construction phase?

- b. Which employees and / or subcontractors will be involved with each technique?

III. Construction Waste Analysis (including site / land-clearing materials, as applicable)

- a. **Diverted Materials:** For each material anticipated to be reused or recycled (diverted from the landfill) to meet the minimum 50% diversion goal, provide information to complete the table below. (Note: Whenever possible, attempt to use or donate construction waste materials rather than recycling.)

Material or Item	Storage Method (roll-off, bin, area, on pallet, etc.)	Quantity estimate (no., linear ft., square ft., etc.)	Proposed Recipient

Add rows (or paper pages) as required

- b. **Landfill:** For construction phase trash and materials / items that will not be diverted, complete the following table:

Quantity estimate (weight or volume)	Number and size of roll offs anticipated	Proposed landfill site

Division 1 General Requirements
CONSTRUCTION INDOOR AIR QUALITY
MANAGEMENT PLAN
Section 01510

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes requirements for construction indoor air quality, including:
 - 1. Construction Indoor Air Quality Management Purpose
 - 2. Construction Indoor Air Quality Procedures
 - 3. Construction Indoor Air Quality Submittals
- B. This section includes references to the following external documents:
 - 1. "IAQ Guidelines for Occupied Buildings Under Construction", Sheet Metal and Air Conditioning Contractors' National Association (SMACNA), www.smacna.org, (703) 803-2980.
 - 2. "ANSI/AHSRAE 52.2-1999: Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size", American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), www.ashrae.org, (800) 527-4723.

1.3 PURPOSE

- A. The intent of Construction IAQ (Indoor Air Quality) management is to reduce indoor air quality problems resulting from the construction process in order to help sustain the health and well-being of construction workers and building occupants.

1.4 PROCEDURES

- A. The Contractor shall make every effort to reduce pollutants throughout the construction process in order to achieve compliance with IAQ testing maximum concentrations discussed below. The most significant method for achieving success is through source control, that is:
 - 1. Install products and materials that are low- or zero-VOC, do not contain added formaldehyde, and are free of particulates
 - 2. Request in-factory flush-out from manufacturers wherever possible, to flush out pollutants before products arrive at the site
- B. The Contractor shall adopt an IAQ management plan to protect the HVAC system during construction, control pollutant sources, and interrupt contamination pathways.
- C. Contractor shall sequence the installation of materials to avoid contamination of absorptive materials such as insulation, carpeting, ceiling tile, and gypsum wallboard.
- D. Temporary HVAC units (independent of permanent ductwork and distribution systems) are recommended as the optimal method for achieving the Construction IAQ requirements. This

allows permanent HVAC equipment to be fully protected. If contractor is utilizing permanent HVAC equipment for fresh air, heating, or cooling during construction, all air intakes shall be protected from incoming construction debris. Contractor shall use filtration media in all permanent air handling equipment during construction, and replace this media immediately before occupancy.

1. Regularly occupied spaces: Filtration media during and after construction shall have a Minimum Efficiency Reporting Value (MERV) of 13 as determined by ANSI/ASHRAE 52.2-1999. Obtain a diagram from MEP Engineer indicating location of all regularly occupied spaces.
 2. All other spaces: Filtration media during and after construction shall have a Minimum Efficiency Reporting Value (MERV) of 8 as determined by ANSI/ASHRAE 52.2-1999.
- E. The Contractor shall employ Green Housekeeping methods wherever practicable.
1. Use non-toxic cleaners per Green Seal: <http://www.greenseal.org/>
 2. Conserve energy by shutting off lights and HVAC in all areas except those currently being cleaned.

1.5 SUBMITTALS

- A. With first Application for Payment, the General Contractor is to submit a draft Construction IAQ Management Plan. Architect will return plan with revisions or approval, to be resubmitted as many times as necessary for Architect's final approval. The plan shall be divided into 6 parts, addressing each of the following topics per "IAQ Guidelines for Occupied Buildings Under Construction", Sheet Metal and Air Conditioning Contractors' National Association (SMACNA); <http://www.smacna.org/> ; (703) 803-2980. The plan shall also include requirements described in "Procedures" above.
1. HVAC protection
 2. Source Control
 3. Pathway Interruption
 4. Housekeeping
 5. Filter Maintenance Schedule
 6. Scheduling
- B. With subsequent Applications for Payment, the General Contractor is to submit documentation of IAQ procedures as follows:
1. Provide cut sheets of filtration media used during construction with MERV values highlighted (per ANSI/ASHRAE 52.2-1999). Fresh clean filters must be installed immediately prior to occupancy.

END

PART 1 - GENERAL

1.1 Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 General

CONTRACTOR shall maintain reasonable local vehicular and pedestrian dust free traffic, including use of driveways, to proceed safely with minimum inconvenience, except during actual construction operations. CONTRACTOR provided flaggers shall assist traffic when a street is operating under a single lane. Two-way traffic shall be maintained at all other times unless otherwise authorized by Owner.

CONTRACTOR shall provide, at the work zone location during temporary traffic control installation, a designated Competent Traffic Control Person to ensure compliance with the traffic control plans and the provisions of the Contract. Training Certificates for the designated Competent Person shall be provided with submittals at the Precon. Training certificates for competent persons shall be good for four (4) years from the date of training. After such time the competent person must show that additional training or re-certification has been completed to maintain competent person status.

CONTRACTOR shall maintain a smooth and safe ride for traffic by placing steel plates with Asphaltic concrete berms, temporary fill or bridging and temporary surfacing with cold or hot-mix Asphaltic concrete paving in accordance with applicable City Standards.

Sidewalks shall not be obstructed, except by special permission of Owner or E/A. Access to private dwelling and to commercial establishments shall be provided at all times.

CONTRACTOR shall plan and execute his operations in a manner that will cause a minimum interference with traffic. The CONTRACTOR shall place and maintain in good condition, standard barricades at each end of the Project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Barricades and warning signs shall be in accordance with Texas Manual on Uniform Traffic Control Devices (MUTCD) and the City of Austin Transportation Criteria Manual.

Signs, barricades and warning devices informing public of construction features shall be placed and maintained by the CONTRACTOR who shall be solely responsible for their maintenance.

Unless otherwise specified elsewhere in Division 1, neither explosives nor blasting shall be permitted on this Project.

3.2 Traffic Control

3.2.1 It shall be the sole responsibility of the CONTRACTOR to furnish, install, maintain and remove barricades, detour signs, warning signs, lights and all regulatory traffic control devices of the size and type specified, at locations indicated, or as directed or approved by the OWNER in accordance with the Texas Manual on Uniform Traffic Control Devices, (MUTCD), Part VI, Traffic Control for Street and Highway Construction and Maintenance Operations and the City of Austin Transportation Criteria Manual. Upon phase completion, the Contractor shall immediately revise the

temporary traffic devices to reflect the next phase or if the project is complete remove them from the public right of way.

- 3.2.2 Throughout the life of the Contract, all existing roads and Traffic Control devices included in the Work shall be maintained by the CONTRACTOR to a condition, in the opinion of the OWNER, which is equal to or better than that which existed when Work commenced. Maintenance of existing roads and devices shall take priority over all other Work items and shall be subject to a seven-day-a-week, 24-hours-per-day time frame. The CONTRACTOR shall provide a smooth and safe riding surface for all vehicles along the route of this Project. This could include, but not be limited to, small cars, motorcycles, mopeds and bicycles. If the condition of the street surface deteriorates, for any reason, CONTRACTOR shall take necessary steps to insure immediate restoration.
- 3.2.3 During construction of streets, drainage, and utility projects, if conditions of existing street surface require maintenance to upgrade from their state when the Work began, a separate pay item may be included in Bid. Otherwise, maintenance work will not be paid for directly but will be considered subsidiary to various Bid items of this Contract.
- 3.2.4 In the event that CONTRACTOR fails, in opinion of OWNER, to maintain a smooth surface for public comfort, fails to provide ingress and egress to private property, and/or does not provide and maintain proper traffic control devices, OWNER may provide these services and deduct any cost thereof, including overtime and administrative expenses, from all estimates thereafter due the CONTRACTOR. Such action by the OWNER shall not relieve the CONTRACTOR of his liability to protect the public at construction site. Owner may also assess an investigation fee, as established by separate Fee Ordinance, for violations resulting in more than one deficiency report issued to Contractor.
- 3.2.5 A permit must be obtained from Texas Department of Transportation (TxDOT), prior to Work being performed on state highway routes passing through the City.
- 3.2.6 CONTRACTOR shall notify the Owner's Representative, Police Department, Fire Department, EMS, and Right of Way Management Division at least seven Calendar Days in advance of beginning proposed Work, with intention to close or partially block any street or any part thereof, or of any construction affecting free flow of traffic. The CONTRACTOR shall plan and adequately provide barricades and warning devices. The same parties shall be notified when normal traffic flow is restored.
- 3.2.7 Should the CONTRACTOR, in his operations, reduce an existing two-way roadway to less than 20 feet in width, CONTRACTOR shall provide a route through or around the narrowed area as approved by Owner or E/A.
- 3.2.8 The CONTRACTOR's Flaggers shall be required any time it is necessary for the CONTRACTOR's equipment to move into or across an open traffic lane, or at other such times as directed by the Owner's Representative. A flagger shall be utilized to aid exit of hauling equipment from open traffic lanes to the Work area, and entry of hauling equipment from Work area to open traffic lanes. Flaggers shall be dressed and conduct operations in accordance with Texas Manual on Uniform Traffic Control Devices and the Transportation Criteria Manual. Flagging operations shall be the sole responsibility of the CONTRACTOR.
- 3.2.9 The CONTRACTOR and Subcontractors shall confine their activities to the immediate area of the construction site and provide the following:
 - a. Appropriate temporary fences, barricades, and/or Metal Beam Guard Fence if required, for site work involving excavation, utility extensions, remote construction work or other circumstances involving safety of public or protection of the work in progress.

- b. Warning lights at open trenches, excavations, etc., during hours from dusk to dawn each day. Protection of structures, utilities, sidewalks, pavements, and other facilities immediately adjacent to excavations, from damages caused by settlement, lateral movement, undermining, washout and other hazards.

3.3 Spoil Disposal

CONTRACTOR may make other arrangements for spoil disposal subject to E/A evaluation of the CONTRACTOR-supplied proof that the Owner(s) of the proposed site(s) has a valid fill permit issued by the appropriate governmental agency. Finally, the CONTRACTOR shall submit a haul route plan including a map of the proposed route(s) for the E/A and Owner's approval.

3.4 Restoration

3.4.1 In order to minimize environmental and potential flood impacts, the sum of the amount of trench opened in advance of the completed line and the amount of trench left unfilled at any time shall be restricted to one (1) full block or 300 linear feet, whichever is less.

3.4.2 Restoration shall be an on-going process during construction operations and shall immediately precede completion of construction of each successive section of the line, which shall not exceed 1,200 linear feet without approval of the E/A.

3.5 Street Markers and Traffic Control Signs

It shall be responsibility of the CONTRACTOR to remove, preserve and reset, as required, Street Marker and Traffic Control Signs that are within construction limits to the line and heights as described in Texas Manual on Uniform Traffic Control Devices before any sidewalks or street excavation is begun. Signs shall not be laid on the ground. No payment will be made for this work but shall be considered subsidiary to the various Bid items. Traffic Sign Activity Section of the Transportation Department (457-4850) shall be notified a minimum of five Working Days prior to completion of the Project so that signs may be checked for damage. Any damage to signs or posts shall be paid for by the CONTRACTOR.

3.6 Burning Permit

Open burning within City limits will not be allowed. Trench burning shall require a permit from the Fire Marshal. Burning permits outside City limits shall be obtained from the appropriate authority.

The CONTRACTOR shall secure and pay for all burning permits.

3.7 Driveways

Unless otherwise indicated, the approach grade of existing driveways shall be modified as indicated and as directed by the Owner's Representative. The OWNER will contact property owners whose driveways require grade modification beyond street right-of-way and the OWNER will obtain their concurrence for approach grade modification. Within the right-of-way, all driveways shall be replaced with concrete driveways. Outside the right-of-way, when approach grade modifications are required, flexible base shall be placed by the CONTRACTOR to resurface existing dirt or gravel driveways; asphalt and concrete drives shall be replaced in kind by the CONTRACTOR. Excavation, Flexible Base, Portland Cement Concrete and Asphaltic Concrete, used for driveways as prescribed above shall not be measured for payment but shall be considered subsidiary to various Bid items in the Contract unless payment is included as a separate Contract pay item.

3.8 Removal or Relocation of Fences and Sprinkler Systems

Removal or relocation of privately owned fences and sprinkler systems not specified in Bid, and within public right-of-way is the primary responsibility of the property owner. OWNER will cause property owners to be aware of any known conflicts and encourage them to make desired adjustments in advance of construction. In the event the property owner does not,

or will not, make adjustments necessary for construction of improvements to be made under this Contract, CONTRACTOR, after receiving written approval from the OWNER, shall remove those portions that interfere with the Work, as follows:

- 3.8.1 Fences shall be disassembled, by hand, into hand manageable sizes and placed on the private property.
- 3.8.2 For sprinkler systems, the CONTRACTOR, after assuring that electrical and/or mechanical controls are disconnected, shall remove sprinkler heads, valves, controls, and any other miscellaneous items, including distribution pipe, or wire, saw cut from the system. The CONTRACTOR shall present these materials to the property owner. Where piping is cut, the pipe shall be permanently capped or plugged, unless otherwise directed by the OWNER.

Work for removal or relocation of fences and sprinkler systems shall not be paid for directly but shall be subsidiary to the various Bid items.

End

PART 1 GENERAL

1.01 SUMMARY

- A. This Section includes the general requirements for in-place testing of individual pieces of equipment and systems and startup of unit processes to demonstrate the intended overall functionality of **Work components**. Requirements for equipment and system testing and facility start up, include, but are not limited to the following:
1. Start-Up Plan.
 2. General Start-Up and Testing Procedures.
 3. **Equipment List (see submittal section requirements)**
 4. **Pre-Startup Checklists (see example in appendix)**
 5. **Instruments Installation Reports (see example in appendix)**
 6. **I/O Checklists/Certificates of Calibration (see example in appendix)**
 7. **Certificates of Proper Installation**
 8. **Individual Equipment – Functional Testing.**
 9. **Individual Equipment – Performance Testing.**
 10. **System – Operational and Readiness Test (ORT)**
 11. **System – Performance and Acceptance Test (PAT) – Minimum 5-Day Test**
 12. **Final Testing Requirements.**
- B. Except as noted otherwise, all costs for training, testing, startup, installation, supervision, etc., shall be the responsibility of the CONTRACTOR.

1.02 RELATED REQUIREMENTS

- A. 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 the CONTRACTOR's Work.
- B. **Contractor is responsible for obtaining all required testing measurement equipment. Contractor shall furnish copies of calibration data sheets, current within one (1) year from the date of test, for all measurement equipment proposed to be used during testing prior to the test for review. This includes, but is not limited to: pressure gauges, flow meters, noise, and temperature measuring equipment. If proposed to be used during the testing, current calibration certificates for existing plant measuring devices shall also be furnished for review prior to the pump test.**
- C. **Instruments Installation Report(s) (IIR): Where proposed instruments are installed, Instrument and Control System Contractor (ICS) shall provide Instruments Installation Report(s) (IIR). Data shall be recorded on "Instruments Installation Reports". After installation, the manufacturer's non-sales type technical representatives shall inspect the installation and prepare a report or reports. Note: The IIR is required in addition to all the other tests, calibration and checkout procedures required in this test procedure. The IIR must be completed and all deficiencies must be corrected by the ICS prior to commencing the Performance Acceptance Test (PAT).**

1.03 DEFINITIONS

- A. Facility: The entire project, or an agreed-upon portion, including its entire unit processes.
- B. Functional Test: **Individual equipment testing, or tests conducted by CONTRACTOR (OWNER & E/A to witness as needed)** to demonstrate that installed equipment meets manufacturer's installation, calibration, and adjustment requirements and other requirements as specified.
- C. Performance Test: **Individual equipment testing, or tests conducted by CONTRACTOR (OWNER & E/A to witness as needed)** to demonstrate and confirm individual equipment meets the performance requirements specified in individual Specification Sections.
- D. Operational Readiness Test (ORT): **Testing conducted by CONTRACTOR (OWNER & E/A to witness as needed)** to demonstrate and confirm that the entire Process Instrumentation and Control System is interconnected.

- E. Performance Acceptance Test (PAT): **Minimum 5-day test**, conducted in the presence of the OWNER and E/A, to demonstrate and confirm **the operation of the entire Process Instrumentation and Control System and confirm the correct functional/performance operation of the associated individual equipment that shall be controlled/monitored.**

1.04 SYSTEM DESCRIPTION

- A. The purpose of this Section is to:

1. Verify the equipment and systems are installed in accordance with the manufacturer's instructions, industry accepted minimum standards, and Contract Documents to comply with the O&M requirements and Contract Specifications.
2. Verify the equipment and systems receive adequate operational checkout by the CONTRACTOR.
3. Verify and document proper performance of the equipment and systems.
4. Verify OWNER's operating personnel are adequately trained in the proper operation and maintenance of each piece of equipment.
5. Equipment testing and startup does not relieve the CONTRACTOR of the responsibility to provide a finished and fully functioning Project.

- B. Equipment testing and facility startup overview and general order:

1. Begin with an initial **pre-startup coordination meeting to review this specification and Contract requirements. Develop a start-up milestone schedule and action item list with assigned tasks. Discuss required submittals and development of the Equipment List, Pre-startup Checklists, Instrumentation Installation Forms, I/O Checklist/Calibration Certifications, and any other forms/reports required by the Contract or this specification. Schedule second pre-startup meeting to review DRAFT checklist/forms.**
2. **Conduct a second follow-up meeting to review DRAFT startup checklist and forms listed above and any others required by the Contract or this specification.**
3. Conduct progress meetings throughout construction, to plan, scope, coordinate, schedule activities and resolve issues.
4. In general, checkout and performance verification proceeds from simple to complex; from component level to equipment; to systems and intersystem levels with verification checklists being completed before functional testing.
5. Equipment and system installers execute and document verification checklists and perform verification checks and startup.
6. CONTRACTOR and equipment and system installer shall develop specific equipment and system functional performance test procedures, incorporating the requirements of this and other individual equipment Specification Sections.
7. Items of non-compliance in material, installation or setup shall be corrected at CONTRACTOR's expense and the equipment or system re-tested.

1.05 SUBMITTALS

- A. Submit the following in accordance with Section 01300, "Submittals".

1. ***Equipment Startup and Performance Demonstration Plan.***
 - a. Develop a written plan, in conjunction with the OWNER's operational personnel and/or the E/A to include the following:
 - 1) Step-by-step instructions for the startup of each piece of equipment, each unit process, and the complete facility.
 - 2) ***Equipment List to minimally include the following:***
 - a) **Equipment Tag Numbers**
 - b) **Specification Reference**
 - c) **Manufacturer**
 - d) **Model**
 - e) **General Location/Service**
 - f) **Range/Setpoint**
 - g) **Description of the of all included devices**

- 3) **Equipment Startup Procedure** to minimally include the following:
 - a) Description of the equipment, including equipment tag numbers, nomenclature of each item of equipment and all included devices, and equipment location.
 - b) Date of test and reference to unique verification checklist and startup documentation.
 - c) Required pre-test field measurements, formulas used in calculations and instrument calibration data.
 - d) Special cautions, alarm limits, and safety concerns.
 - e) Specific step-by-step procedures to execute test, in clear, sequential and repeatable format.
 - f) Acceptance criteria of proper performance with yes/no check box to allow for marking whether proper performance of each part of the test was achieved. Include a section for comments.
- 4) **Performance Acceptance Test Procedure** to minimally include the following:
 - a) In addition to the items/format specified above, provide detailed procedure for startup of the unit process, including valves and gates to be opened/closed, order of equipment startup, etc.
 - b) Startup requirements for each unit process, including water, power, chemical, etc. and requirements for other instrumentation, equipment, or systems to be in operation prior to startup. Also include requirements related to involvement of work being installed by Others.
 - c) Operation in hours or days to demonstrate proper operation. The minimum time for operation is specified in this Section.
 - d) Space for evaluation comments.

2. Test Instrumentation Calibration Data **Sheets**

3. **Pre-Startup Checklist (see examples in appendix)**

4. **I/O Checklists/Certificates of Calibration (see examples in appendix)**

5. **Startup schedule with major milestones and equipment/field test dates.**

6. **Instruments Installation Reports as required herein. Incorporate and include and additional forms/reports specified in individual Specification Sections.**

B. Certificate of Proper Installation: Furnish report, prepared by manufacturer's technical representative, certifying the satisfactory installation, operation, and in-service placement of each piece of equipment.

1.06 QUALITY ASSURANCE

A. System Coordination: CONTRACTOR is responsible for the details and coordination necessary to properly install, test, **and certify** a complete, working system.

B. The CONTRACTOR shall provide the services of a qualified manufacturer's service technician to:

1. Assist in the installation of equipment.
2. Check the installation before the equipment is placed into operation.
3. Assist in the performance of field tests.
4. Assist in the startup of the equipment.
5. Train the OWNER's operational and maintenance personnel in the care, operation, and maintenance of all supplied equipment.

C. The CONTRACTOR shall provide the services of the manufacturer's service technician at such times and for such duration of time as are needed to perform the tasks required above. Reference the individual equipment Specification Sections for additional details.

PART 2 PRODUCTS

2.01 TOOLS, SPARE PARTS, AND ACCESSORIES

A. Testing Equipment Requirements

1. Testing Equipment: Calibrated within last year; of sufficient quality and accuracy to test and measure system performance within the following tolerances unless otherwise specified for individual equipment:
 - a. Temperature Sensors and Digital Thermometers: 0.5°F accuracy and $\pm 0.1^\circ\text{F}$ resolution.
 - b. Pressure Sensors: Accuracy of $\pm 2.0\%$ of measured values range.
 - c. Vibration Sensors: Use digital type analyzers or data collectors with anti-aliasing filter, 12 bit A/D converter, fast Fourier transform circuitry, phase measurement capability, time wave form data storage, high frequency enveloping capabilities, 35 frequency ranges from 21 to 1,500,000 cycles per minute, adjustable fast Fourier transform resolution from 400 to 6,400 lines, storage for up to one hundred 3,200 line frequency spectra, RS232C data output port, circuitry for integration of acceleration data to velocity or double integration to displacement.
2. Recalibrate test equipment according to manufacturers recommended internals and when dropped or damaged.
 - a. Affix calibration tags to test equipment or furnish certificates upon request.
3. Equipment furnished by CONTRACTOR and remaining property of CONTRACTOR:
 - a. Standard testing equipment required to perform verification check and start-up and required testing.
 - b. Two-way radios for personnel performing testing.

PART 3 EXECUTION

3.01 GENERAL EQUIPMENT VERIFICATION

A. General

4. Complete testing, training, and start-up within the time frame **specified herein and in individual equipment specification sections**. Provide OWNER a minimum of 7-day advance notice prior to scheduled test.
5. Allow for realistic durations when planning Work for testing, training, and start-up activities.
6. Furnish labor, power, chemicals, tools, equipment, instruments, and services required for and incidental to completing functional testing, performance testing, **ORT, and PAT**.
7. Provide competent, experienced technical representatives of equipment manufacturer's for assembly, installation, and testing guidance, and operator training.

B. CONTRACTORS Testing and Startup Representative:

1. Designate and furnish one or more personnel to coordinate and expedite testing.
2. Representative(s) shall be available at all times during the testing and startup.

C. Facility Startup Meetings:

1. Schedule testing meeting with OWNER, E/A, and other stakeholders as appropriate to discuss test schedule, test methods, materials, chemicals, and liquids required, facilities operations interface, and OWNER involvement.

D. Temporary Facilities and Labor:

1. Provide necessary fluids, utilities, temporary piping, temporary supports, temporary access platforms or access means and other temporary facilities and labor necessary to safely operate the equipment and accomplish the specified testing. With OWNER's permission, some utilities may be provided by fully tested permanently installed utilities that are part of the Work.

E. Field Testing:

1. Submit test plan as specified in this Section. Indicate test start time and duration, equipment to be tested, other equipment involved or required; temporary facilities required; number and skill or trade of personnel involved; safety issues and planned safety contingencies; anticipated effect on OWNER's existing equipment and other information relevant to the test. Provide locations of all instruments to be used for testing. Provide

- calibration records for all instrumentation.
 2. Perform general startup and testing procedures.
 3. Prior to testing, verify equipment protective devices and safety devices have been installed, calibrated, and tested.
- F. Reports: Submit reports for field-testing Report features:
1. Report results in a bound document, in generally accepted engineering format with title page, written summary of results compared to specified requirements, and appropriate curves or plots of significant variables, in English Units.
 2. Include appendix with a copy of the raw, unmodified test data sheets indicating test value, date and time of reading, and initials of person taking the data.
 3. Include appendix with sample calculations for adjustments to raw test data and for calculated results.
 4. Include appendix with the make, model, and last calibration date of instrumentation used for test measurements.
 5. Include in body of report a drawing or sketch of the test system layout, showing location and orientation of the test instruments relative to the tested equipment features.
- G. Owner will:
1. Provide chemicals, unless otherwise indicated.
 2. Provide labor and materials as required for laboratory analysis.
 3. Make available spare parts, special tools, and operation and maintenance information for any OWNER-furnished products.

3.02 PREPARATION, FUNCTIONAL & PERFORMANCE TESTING

- A. Preparation:
1. Complete installation prior to initiating test.
 2. Obtain and submit from equipment manufacturer's representative, the Certificate of Proper Installation.
 3. **Instrument Installation Reports:** Provide written test report for each item of equipment to be tested. The form shall include:
 - a. Owner/Project Name
 - b. Equipment or Item tested. Use Equipment Id numbers when appropriate
 - c. Date and time of test
 - d. Weather conditions, if applicable
 - e. Type of test performed (Functional and Performance)
 - f. Test Method
 - g. Test conditions
 - h. Test results
 - i. **Deficiencies found**
 - j. **Corrective action taken**
 - k. **Properly installed COPI (Checkbox)**
 - l. **Calibration date**
 - m. Signature spaces for witnesses.
 4. Cleaning and Checking: Prior to beginning functional testing:
 - a. Calibrate testing equipment in accordance with manufacturer's instructions.
 - b. Inspect and clean equipment, devices, connected piping, and structures to ensure they are free of foreign material. Remove rust preventatives and oils applied to protect equipment during construction.
 - c. Flush lubrication systems and dispose of flushing oils. Recharge lubrication system with lubricant recommended by manufacturer.
 - d. If necessary, flush fuel system and provide fuel for testing and startup.
 - e. Install and adjust packing, mechanical seals, O-rings, and other seals. Replace defective seals.
 - f. Remove temporary supports, bracing, or other foreign objects installed to prevent damage during shipment, storage, and erection.
 - g. Turn rotating equipment by hand when possible to confirm that equipment is not

- bound.
- h. Open and close new valves and gates by hand and operate other devices to check for binding, interference, or improper functioning. OWNER supplied equipment shall be operated by or in direct coordination with the OWNER.
- i. Check power supply to electric-powered equipment for correct voltage.
- j. Adjust clearances and torque. Perform cold alignment and hot alignment to manufacturer's tolerances.
- k. Test new piping for leaks.
- 5. Ready-to-Test determination will be made by OWNER and E/A based at least on the following:
 - a. Acceptable **DRAFT O&MS Provided (Electronic and Hard Copies)**.
 - b. Notification by CONTRACTOR of equipment readiness for testing, including assurances that all necessary personnel have been scheduled.
 - c. Receipt of manufacturer's Certificate of Proper Installation.
 - d. Adequate completion of work adjacent to, or interfacing with, equipment to be tested, including items to be furnished by OWNER.
 - e. Availability and acceptability of manufacturer's representative performing the testing of the respective equipment.
 - f. Equipment and electrical tagging complete.

B. Functional Testing:

1. Develop construction checklists (aka pre-functional checklists) - This confirms that the systems have been installed per the manufacturer's recommendations, programmed, and started up. Items to be verified by the GC/Owner include:
 - a. Equip. documentation/labeling
 - b. Anchoring
 - c. Vibration isolation
 - d. Piping/Ductwork connections and insulation
 - e. Electrical safety (grounding)
 - f. Cleaning
2. Conduct pre-functional inspections - To be performed by GC/Owner
3. Develop functional test scripts, typically with all or some of the sections below:
 - a. Date and time of test
 - b. Sensor checks
 - c. Device checks
 - d. Operating mode tests
 - e. Results
4. Execute functional testing – To be performed by the mechanical contractor and/or controls subcontractor
5. Demonstrate proper rotation, alignment, speed, flow, pressure, vibration, and calibration. Perform initial checks in the presence of and with the assistance of the manufacturer's representative. Operate equipment at rated design load conditions for a minimum of 15 minutes after components reach normal operating temperatures.
6. Demonstrate proper operation of each instrument loop function including alarms, local and remote controls, instrumentation and other equipment functions. Generate signals with test equipment to simulate operating conditions in each control mode. Reference individual electrical and instrumentation and control specifications for additional operational readiness testing required for these systems.
7. Identify and correct all areas of deficient performance. Immediately correct defects in material, workmanship, or equipment which became evident during the test. Repeat functional test until all malfunctions or deficiencies are identified and corrected.
8. Prepare written **Instrumentation Installation** Report, in the format specified, summarizing the test methods and results.
9. When, in the **E/A's** opinion, equipment meets the functional requirements specified, such equipment shall advance to the performance testing phase.

C. Performance Testing:

1. Conduct performance test specified in individual specification sections. When specific test

is not specified, operate equipment for a minimum of eight hours at the rated design load conditions after components reach normal operating temperatures. Measure flow, pressure, vibration, noise, temperature, etc. at the rated operating point, and at four additional points to confirm proper operation throughout the entire equipment operating range. When variable speed equipment is specified, complete measurements at all points specified in the individual equipment specifications.

2. Perform testing and verification by using manual testing or by monitoring performance and analyzing results using control system trend log capabilities or by stand-alone data-loggers. Use the normal operating, process fluid, gas, or solid for the performance test.
3. Simulated conditions may be utilized, after coordination with the **E/A and OWNER**. Timing the test to use real conditions is encouraged. Use a signal generator to create simulated signals to test and calibrate transducers. Do not overwrite permanent sensor set-points to achieve simulated conditions.
4. When not included in an individual **Project, E/A** will provide the necessary electrical and instrumentation and control requirements for the performance acceptance testing required for these systems. Perform test of electrical and I&C components utilizing the actual mechanical equipment associated with the electrical and I&C component being tested.
5. Identify and correct all areas of deficient performance. Immediately correct defects in material, workmanship, or equipment which became evident during the test. Repeat performance test until all malfunctions or deficiencies are identified and corrected.
6. Prepare written **Instrument Installation Forms**, in the format specified, summarizing the test methods and results.
7. Prior to unit process startup, individual pieces of equipment shall be confirmed by **E/A** as having met both the functional and performance testing requirements.

3.03 OPERATIONAL READINESS TEST (ORT)

- A. The Operational Readiness Test (ORT) for the Process Instrumentation and Control System (PICS) must be performed prior to startup of the Performance Acceptance Test (PAT). **These tests shall be documented using "ORT and PAT Sheet" (see appendix for example).**
- B. **Check the overall system and each subsystem to see that they function as specified based on simulated inputs at each sensor and at each set of field contacts monitored. This check to include the testing of all automatic functions, sounding of alarms, shutdowns, etc.**
- C. **Check the overall accuracy of each new and modified instrument loop to ensure that it is within acceptable tolerance.**
- D. **If defects are found under simulated conditions, make corrections and retest.**
- E. The Instrument and Control Systems Contractor shall test the PICS Equipment and Systems.
- F. Conduct the ORT with entire PICS installed to demonstrate that it is operational and interconnected.
- G. PICS Subsystems: each portion of the PICS Subsystem shall be tested to demonstrate that the entire system is interconnected.
- H. Distributed Control System (DCS) Loop-Specific Functions: each DCS Loop-Specific Function must be tested including discrete, analog, etc.
- I. Contractor must make the following documentation available to Owner/Engineer at test site both before and during tests:
 1. Master copy of On-Site Test Procedures.
 2. List of equipment to be tested including make, model, and serial number.
 3. Shop Drawing hard copy and digital submittals for equipment being tested.
- J. The daily schedule for the Test shall include the following:
 1. Begin each day with a meeting to review the day's test schedule.
 2. End each day with a meeting to review the day's test results and to review or revise the next day's test schedule.
- K. Submit the following testing related submittals:

1. **ORT Signed Documentation**
 2. Proposed Test Procedures, forms, and checklists.
 3. Copy of signed test procedures when tests are completed.
- L. Upon successful completion of the PICS ORT, the Contractor shall submit letter notification to the OWNER and E/A stating that all PICS ORT have been successfully completed. The letter notification shall further state that the ICS is ready to begin the PAT.

3.04 UNIT PROCESS STARTUP

- A. Prior to completing the Performance Acceptance Tests (PAT), the following must be completed: **The instruments Calibration and Test Report** completed, the Instruments Installation Report(s) "IIR" completed, and Operational Readiness Tests (ORT) completed, and Contractor letter notification of successful completion of ORT and Contractor's readiness for commencement of PAT is submitted. Additionally, the Start-up and PAT procedures associated shop drawing submittals must be completed. Note: Owner requires one (1) week notice prior to start PAT.
- B. ENGINEER shall test software functions.**
- C. Startup sequencing shall be agreed upon in advance by the CONTRACTOR, OWNER, and E/A.
- D. The testing shall be conducted using application software provided by the OWNER, integral with their existing system. The Instrumentation and Control System (ICS) Contractor shall test functions installed and the hard-wired system and the entire associated instrumentation and control system including validating the operation and monitoring and control functions of all instruments, all control devices, all instrument and control components, control functions, alarm function, monitoring function, calibration ranges, control/alarm set point operations, etc.**
1. **The ICS shall start up and test the operation of the instrumentation and control system and the operation of the associated process and mechanical equipment that shall be monitored and controlled by the instrumentation and control system.**
 2. **The PICS system component shall include loop-specific tests of the entire installed PICS using actual process variables and demonstrating all functions, including:**
 - a. **Checking the PICS for proper installation, calibration, and adjustment on a component-by-component basis.**
 - b. **Analog Devices: Tested using actual inputs and outputs at 0, 25, 50, 75, and 100 percent of span, rising and falling.**
 - c. **Discrete Devices: Tested using actual trip points and reset points.**
 - d. **Indicators/Transmitters/Controllers: Tested using alarm and control set point as well as set point function tests in association with their respective interface with the control logic of the associated process mechanical equipment.**
 - e. **Analog I/O Modules: Tested using actual inputs or outputs of 0, 25, 50, 75, and 100 percent of span, rising and falling.**
 - f. **Perform local and manual tests for each loop before proceeding to remote and automatic modes.**
 - g. **Perform complete control logic simulation and actual/live test in all modes of operations.**
 - h. **Make updated versions of documentation required for PAT available to Owner and E/A at Project site, both before and during tests.**
- E. Make any adjustments, repairs, and corrections necessary to complete the unit process startup.
- F. OWNER and E/A will provide operations personnel to monitor the process for the duration of the test. CONTRACTOR shall provide labor, power, fuel, and other consumables needed to conduct the test for the duration.
- G. Immediately correct defects in material, workmanship, or equipment which become evident during the Facility Performance Demonstration. In the event of a significant interruption, as defined above, CONTRACTOR shall correct the deficiency and re-start the demonstration. The

test period shall start from the beginning again.

1. **Significant interruption may include the following:**
 - a. **Failure of CONTRACTOR to provide and maintain qualified onsite startup personnel as scheduled.**
 - b. **Failure to meet specified functional operation for more than 2 consecutive hours.**
 - c. **Failure of any critical equipment, monitor, or control that is not satisfactorily corrected within 5 hours after failure.**
 - d. **Failure of any noncritical equipment, monitor, or control that is not satisfactorily corrected within 8 hours after failure.**
 - e. **Requires more than 24 hours to correct, unless otherwise specified.**
 - f. **Recurrs within the 24-hour correction period requiring further correction.**
- H. **The following must be completed prior to conducting the Performance Acceptance Test:**
 1. **Complete Instruments Installation Report(s).**
 2. **Complete ORT.**
 3. **Provide letter notification of successful completion of ORT and Contractor readiness to commence PAT.**
- I. **Submit the following testing related submittals:**
 1. **ORT & PAT Form: Upon approved PAT, complete the last PAT approval line and submit**
 2. **Test Procedures: Proposed Test Procedures, forms, and checklists.**
 3. **Test Documentation: Copy of signed test procedures when tests are completed.**
- J. **Submit all shop drawings and other submittals associated with the Startup and procedures.**

3.05 COMPLETION OF TESTING

- A. When, in the opinion of the OWNER, startup of all unit processes has been satisfactorily achieved, sequence each unit process to the point that the entire facility is fully operational. Under no circumstances will the Project be considered Substantially Complete until full function facility performance has been demonstrated.
- B. After completion of operator training for all equipment, demonstrate the proper operation of all required unit processes and interfaces for the entire facility. Demonstrate satisfactory operation of all equipment and systems in actual operation, using process fluid, gas, or solid.
- C. Provide all required documentation and certify that the facility is capable of performing its intended functions.
- D. **Incorporate all final Startup Submittals, Pre-Startup Checklists, Instrument Installation Reports, and I/O Checklist/Calibration Certificates into the O&M manuals before and required for final approval.**

3.06 CERTIFICATE OF PROPER INSTALLATION (COPI)

- A. At the completion of the individual Performance Test, furnish written report prepared and signed by the manufacturer's authorized representative and the Owner's Representative, certifying that:
 1. The equipment has been properly installed, adjusted, aligned, and lubricated.
 2. Is free of any stresses imposed by connecting piping or anchor bolts.
 3. Is suitable for satisfactory full-time operation under full load conditions
 4. Operates within the allowable limits for vibration.
 5. Controls, protective devices, instrumentation, and control panels furnished as part of the equipment package are properly installed, calibrated, and functioning.
 6. Control logic for startup, shutdown, sequencing, interlocks, and emergency shutdown has been tested and is properly functioning.

3.11 MEASUREMENT AND PAYMENT

- A. The cost of all work materials, labor, overhead, insurance, equipment, etc. necessary to finish the work complete in place shall be included in the lump sum bid price for the project.

Certificate of Calibration

Project Information							
Customer Name:	City of Austin		Customer Contact:	Tiny Eldridge			
Project No.:	1658009		Customer Phone:	254-793-4344			
Project Name:	South Austin Regional WWTP Filter Improvements		Engineer Company:	T. Morales Company Electric & Control, LTD			
Address:	13009 Fallwell Lane Del Valle, TX 78617		Engineer Contact:	AECOM			
			Engineer Phone:	(512) 472-4519			
			P.O. Ref:				
Instrument Information							
Location/Service:	Filter Building						
Tag/Loop No.:	FB1-FE-FIT-7304		Description/Type:	Mudwell Pumps Discharge Flow Indicating Transmitter			
Serial Number:			Manufacturer:	Endress + Hauser			
Additional Info.:			Model No.:	53W4F-HLGE1AC187CB			
Calibration Procedures							
Range or Setpoint			Percent	Input	Ideal Output	Output Found	Output Left
Low	High	EU					
0	7000	GPM	100%	7000 GPM	20.00 mA		
Trip Point or Miscellaneous			75%	5250 GPM	16.00 mA		
Percent	*Tolerance +	*Tolerance -	50%	3500 GPM	12.00 mA		
100%	20.08 mA	19.92 mA	25%	1750 GPM	8.00 mA		
75%	16.08 mA	15.92 mA					
50%	12.08 mA	11.92 mA					
25%	8.08 mA	7.92 mA	0%	0 GPM	4.00 mA		
0%	4.08 mA	3.92 mA					
Calibration Completion			Special Requirements or Comments				
*Tolerance +/-	0.50%						
Last Calibrated:							
Calibration Date:							
Calibration Due Date:							
Recommended Interval:							
Calibrated By:							
Accepted By:							
Temperature / RH:							
Equipment Used to Calibrate Instrument							
Manufacturer	Model Number	Serial Number	NIST Number	Last Calibrated			
Certified Calibration: Test equipment used to calibrate this instrument, have all been calibrated by Certified Standards and are traceable to the National Institute of Standards and Technology (NIST). All Calibration procedures conform to contract requirements.							

FORM 1. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

Instruments Installation Reports

Instrument Tag/Description	Deficiencies Found	Corrective Action Taken	Properly Installed (COPI)	Calibration Date	Prime Initials	COA Initials	Engineer Initials	Date
PIT-0135			<input type="checkbox"/>					
FI-0133			<input type="checkbox"/>					
FSL-0115			<input type="checkbox"/>					
PI-0126			<input type="checkbox"/>					
PIT-0113			<input type="checkbox"/>					
Flow Meter for Pump Discharge Flow Measurement			<input type="checkbox"/>					
Instrument for Noise Measurement in Decibels			<input type="checkbox"/>					
Instrument for Bearing Temperature Measurement			<input type="checkbox"/>					

FORM 2. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

Pre-Startup Checklist

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Verify proper installation of pump drive per manufacturer's specifications.	RWPG-SLP-002	<input type="checkbox"/> All separately-packed, small, or fragile parts included in installation. <input type="checkbox"/> All external bolts, screws, and accessories are fastened securely. <input type="checkbox"/> Mounting bolts are fastened securely. <input type="checkbox"/> Electric motor is connected in conformance with the locally applicable rules and regulations. <input type="checkbox"/> Lubricant level is per manufacturer recommendation. <input type="checkbox"/> No obstructions such as closed valves in piping.					
Verify proper motor wiring per manufacturer's specifications.	RWPG-SLP-002	<input type="checkbox"/> Correct wiring.					
Verify rotation of motor per manufacturer's specifications.	RWPG-SLP-002	<input type="checkbox"/> Correct rotation.					

FORM 3. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

Hydraulic and Mechanical Pump Test

Performance Data

Design Flow Rate	Measured Flow Rate	Design Pressure	Measured Suction Pressure	Measured Discharge Pressure	Noise, 3' from Unit	Bearing Temp.
(gpm)	(gpm)	(ft)	(ft)	(ft)	(dBA)	°F
225						
200						
175						
150						

* Determine bearing temperatures by thermometer. A run time until bearing temperatures have stabilized shall precede this test, unless insufficient liquid volume is available.

Upflow Clarifier Solids Data

Solids Measurement	Fluid Viscosity (CP)*	Temperature (°F)
Prior to pump startup		
At end of pump test		

* Alternatively, if given units are not available to be measured, sludge density may be used.

Checklist

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Confirm performance data conforms to certified factory test curve	RWPG-SLP-002	<input type="checkbox"/> Measured performance conforms to factory curve					
Verify that noise does not exceed 85 dBA at a distance of 3 feet.	RWPG-SLP-002	<input type="checkbox"/> No excessive noise.					
Verify that bearing temperatures do not exceed the manufacturer's recommended value	RWPG-SLP-002	<input type="checkbox"/> No excessive bearing temperature:					

FORM 4. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

ORT and PAT Sheet

Operational Readiness Test (ORT)

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Confirm all instrument wires have been terminated correctly and transmit the appropriate signal	RWPG-SLP-002	<input type="checkbox"/> Complete					
Local Controls							
Confirm Local/Off/Remote Status	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm local Start/Stop /Reset (manual)	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm pump cannot be operated locally (with the exception of local shutdowns) while in Remote	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm suction pressure indication	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm discharge pressure indication	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm local flow indication	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					

FORM 4. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

ORT and PAT Sheet

Operational Readiness Test (ORT)

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Confirm alarm condition on high discharge pressure	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm seal water solenoid valve has hardwired interlock to automatically open and provide seal water to the pump when in operation	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm Rotameter settings are such that seal water pressure and flow rate match manufacturer's recommendations	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm pump RWPG-SLP-002 has interlock to shut pump down if the discharge pressure rises above the high discharge pressure set point	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
SCADA Controls							
Confirm remote Start/Stop (manual)	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm Local/Off/Remote Status	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS					

FORM 4. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

ORT and PAT Sheet

Operational Readiness Test (ORT)

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Confirm Pump On/Off Status	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm suction pressure indication	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm discharge pressure indication	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm seal water low flow switch status	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm alarm condition on high discharge pressure	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm alarm condition on motor overload	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm alarm condition on low seal water flow	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm alarm condition on "fail to start"	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm alarm condition on "fail to stop"	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					

FORM 4. WTP 4 LIME RESIDUALS PUMP RWPG-SLP-002

ORT and PAT Sheet

Operational Readiness Test (ORT)

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Confirm pump cannot be operated remotely while in Local	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					
Confirm Remote Auto Control of pump (cycle timer with values input for pump runtime and frequency)	RWPG-SLP-002	<input type="checkbox"/> Simulated signal <input type="checkbox"/> With entire PICS installed					

Performance Acceptance Test (PAT)

Activity	Equipment ID	Verification Check	Comments	Prime Initials	COA Initials	Engineer Initials	Date
Performance Acceptance Test (PAT)	ALL	<input type="checkbox"/> Discrepancies found <input type="checkbox"/> Corrective actions completed <input type="checkbox"/> PAT complete, to the satisfaction of the Owner					

PART I - GENERAL

1.01 SUMMARY

- A. This Section specifies the general minimum training requirements associated with equipment and systems installed by the Contract.
- B. Training requirements for the various plant components, systems, etc. are described in various sections of the specifications.
- C. All costs for training, testing, startup, installation, supervision, etc., shall be the responsibility of the CONTRACTOR.
- D. Training is applicable, but not limited to the following equipment and systems specified herein.

1.02 RELATED REQUIREMENTS

- A. Work as called for on PLANS, and in this or other Specification Sections including 01300 and 01730.
- B. This section specifies the general minimum requirements for the contract. Other more specific requirements may be described in various sections of the specifications. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- C. 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 the CONTRACTOR's Work.
- D. CONTRACTOR shall develop and administer a training log consisting of all training identified in the Contract. CONTRACTOR shall submit training log for Engineer/OWNER review and approval.
- E. Description of Requirements
 - 1. General
 - a. Contract Requirements: Testing, training, and start-up are prerequisite to the satisfactory completion of the Contract.
 - b. Complete testing, training, and start-up within the Contract Times.
 - c. Allow realistic durations in the Progress Schedule for testing, training, and start-up activities.
 - d. Provide dedicated line item for training in Contract schedule of values.

**AUSTIN WATER TRAINING REQUIREMENTS
SECTION 01670**

- e. Furnish all labor, materials, equipment, and incidentals necessary to train the OWNER staff on the equipment, products, and systems provided under the Contract.
- f. Objective of Training: The objective of the training shall be to convey the knowledge needed by OWNER operations, maintenance, and engineering staff to safely operate, maintain, and repair the equipment and systems provided under this Contract. OWNER's staff who will participate in this training have existing full-time work assignments and this training is an additional assigned work task. OWNER's staff regularly shift work schedules, as facilities are operated on an around-the-clock basis. Training shall be focused to the skills and job classifications of the staff attending the classes, e.g., plant manager, water treatment plant operator, maintenance technician, electrician, and engineering. Supporting documentation, such as training aids, agendas, operation and maintenance manuals to assist the instruction learning process and to serve as a source of information to OWNER staff after training, shall be furnished.
- g. CONTRACTOR is required to document all training in dedicated/organized section/manual in the O&M Manual. Including training schedules, agenda, materials, aids, etc.

1.03 NOT USED

1.04 DEFINITIONS (NOT USED)

1.05 TRAINING REQUIREMENTS

A. Training of OWNER'S Personnel

- 1. Instruction Format: The training for operations personnel and for maintenance personnel shall be provided as separate entities. The training for maintenance personnel shall be further subdivided into trade groups: mechanical maintenance, electrical maintenance, SCADA Support, and instrumentation and controls maintenance.
- 2. Class Agenda: The agenda shall include a listing of subjects to be presented, time estimated for each subject, list of documentation to be used or furnished to support training, and instructor name. Agendas shall include an allocation of time for OWNER staff to ask questions and discuss the subject matter. The OWNER may request that particular subjects be emphasized and the agenda shall be adjusted to accommodate these requests. Copies of the agenda shall be distributed to each student at the beginning of each training class.
- 3. Number of Students: It is estimated that five (5) to ten (10) persons will attend each training class. The actual number of students will be determined by OWNER. The OWNER will provide an estimated "headcount" one week prior

**AUSTIN WATER TRAINING REQUIREMENTS
SECTION 01670**

to the class, so that the instructor can furnish the correct number of training aids for participants.

4. Training Location: If necessary and appropriate as determined by the OWNER, training shall be conducted at off-Site locations or the actual installed location of the equipment, product, or system.
5. Instructor Qualifications: Instructors shall be completely knowledgeable in the products, systems, and functions for the equipment provided. Sales representatives are not qualified instructors unless they possess the detailed operating and maintenance knowledge required for proper class instruction. If, in the opinion of the OWNER, the scheduled training was not provided by an appropriately knowledgeable person, such training shall be rescheduled and repeated with a suitable instructor at no additional cost to the OWNER.
6. Training Aids: Each instructor is encouraged to use audio-visual devices, P&IDs, models, charts, and so forth to increase the transfer of knowledge. The organization conducting the training shall furnish all such equipment (televisions, video cassette recorder/player, projectors, screens, easels, etc.), models, and charts for each class. It shall be the responsibility of the organization conducting the training to confirm in advance that the class room will be appropriate for the types of audio visual equipment to be employed.
7. Classroom Documentation: If training is being completed on equipment, systems, or products for which an operations and maintenance manual is required, this operations and maintenance manual shall be complete and be used during the classroom instruction. The quantity of operations and maintenance manuals required under Section 01730 – O&M, shall be available for classroom use supplied by training instructor. Supplemental documentation handouts shall be furnished to support instruction. All written materials shall be identified with the name of the training module, subject matter, date of training, and instructor name.
8. Testing: Test OWNER operation and maintenance personnel following the completion of operational and safety training. The purpose of this testing shall be to determine the effectiveness of the training program and to determine the ability of OWNER personnel to safely operate and maintain said processes. Testing shall be comprised of multiple choice and true/false questions. Test results for each attendee shall be turned over to the OWNER.
9. Safety and Health Training: Furnish safety and health training to OWNER personnel that describe the procedures required to safely and healthfully operate and maintain the equipment. Safety and health training shall also include standard procedures for emergency response and safe shutdown of equipment in emergency conditions. Incorporate appropriate OSHA regulations including personal protective equipment and its use and other means of injury and illness prevention such as precautions and engineering controls.

**AUSTIN WATER TRAINING REQUIREMENTS
SECTION 01670**

10. Videotaping: The CONTRACTOR shall videotape all training sessions and provide a copy for the OWNER. OWNER reserves the right to videotape, photograph, audio record, and otherwise document any or all training classes. The organization(s) conducting the training and the CONTRACTOR shall cooperate with OWNER in making such videotapes, photographs, or audio recordings, which shall remain the exclusive property of OWNER.
11. Point of Contact: The CONTRACTOR shall designate and provide one or more persons to be responsible for coordinating and expediting his/her training duties. The person or persons so designated shall be present at all training coordination meetings with the OWNER.

1.06 SUBMITTALS

- A. Prior to scheduling training, all satisfactory functional testing must be complete for that piece of equipment or system.
- B. Submit written training plan to OWNER for review and approval prior to conducting training including the following:
1. Equipment included in training session.
 2. Intended audience.
 3. Location of training.
 4. Objectives.
 5. Subjects covered.
 6. Duration of training on each subject.
 7. Instructor for each subject.
 8. Instructional methods to be used.
- C. Prior to scheduling training, Instructor name and qualifications shall be submitted not less than one (1) month prior to start of training. Instructors shall be completely knowledgeable in the products, systems, and functions for the equipment provided.
- D. Prior to scheduling training, the CONTRACTOR's coordinator shall coordinate the training periods with OWNER personnel and manufacturer's representatives, and shall submit a training schedule and agenda for each piece of equipment or system for which training is to be provided. Such training schedule and agenda shall be submitted not less than four (4) weeks prior to the time that the associated training is to be provided and shall be based on the current plan of operation.

**AUSTIN WATER TRAINING REQUIREMENTS
SECTION 01670**

- E. Prior to scheduling training, all course materials must be submitted, and approved.
- F. Prior to scheduling training, all relevant O&M manuals must be submitted, and approved one (1) month prior to training session for that piece of equipment or system.

PART II - PRODUCTS (NOT USED)

PART III - EXECUTION

3.01 SCHEDULING OF TRAINING

- A. Unless specifically indicated otherwise, all training shall be scheduled in accordance with the following general requirements.
 - 1. Training shall not be scheduled until the manufacturer has verified that the equipment is installed and performs properly. Startup services and training services will be required at separate times which will involve separate trips.
 - 2. Coordinate training sessions to prevent overlapping sessions. Arrange sessions so that individual operators and maintenance technicians do not attend more than two (2) sessions per week.
 - 3. Training shall be coordinated in accordance with the Progress Schedule to occur during system installation, startup, and operation. The OWNER will approve and confirm class schedules. The CONTRACTOR shall schedule training classes at the times requested by the OWNER, within the period 7 a.m. to 3 p.m. Monday through Thursday. Classes covering identical material shall be conducted on different days.
 - 4. Number of Classes on Each Subject: A minimum of two (2) classes on identical subject matter shall be conducted unless otherwise indicated. The purpose of having two classes on each subject is to accommodate the attendance of as many OWNER personnel working different shifts as possible. The OWNER shall have the option, however, of requiring two (2) total classes, but each class shall contain different training material.
 - 5. A maximum of one class per day shall be held on consecutive days unless otherwise approved by the OWNER. Multiple classes should be scheduled if the class duration is longer than four (4) hours. Times shall be scheduled at the discretion of the OWNER.
 - 6. Each session shall be subdivided into two (2) to four (4)-hour modules, or as appropriate for the subject matter being discussed.
 - 7. Training Sessions: Provide training sessions for equipment/system as specified in the individual equipment specification sections.

**AUSTIN WATER TRAINING REQUIREMENTS
SECTION 01670**

8. Length of Training: Each individual training session shall be planned to be completed within no more than four (4) hours, including two (2) fifteen (15)-minute break and a one (1) hour lunch period unless otherwise indicated. Requests for longer sessions must be specifically approved by the OWNER.

B. Refer to Attachment A – Training Summary.

1. All training required in each individual specification must be provided.
2. The list of trainings has been compiled based on the specification requirements stated in the Contract Documents. This trainings list is not exhaustive and the CONTRACTOR shall refer to the specific specification sections for required trainings. In case of discrepancies, the individual section shall prevail.

3.02 MEASUREMENT AND PAYMENT

A. All work items installed, provided, constructed, etc. with the exception of the unit price items listed in Section 00300L – Bid Form (Lump Sum), shall not be paid for separately but shall be considered subsidiary to the lump sum bid price for the Project. The cost of all work materials, labor, overhead, insurance, equipment, etc. necessary to finish the work complete in place shall be included in the lump sum bid price for the project.

END OF SECTION

01670 Attachment A - Training Summary
Hornsby Bend Headworks Improvements
Bid Set

Specification Section	Training Description	COA/AW Entity	Deadline for Training Plan Submittal
11315	Screw Centrifugal Pumps - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance	30 calendar days before training is scheduled
11335	Chain and Rake Bar Screen and Screenings Washing and Compacting Equipment	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
11340	Biotrickling Filter Odor Control System	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled
15204	Electric Actuators for Valves and Gates	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled
15500	HVAC - Air-conditioning, Ventilation, and Controls	Plant Staff - Operations Plant Staff - Maintenance	30 calendar days before training is scheduled
16040	NEMA Frame Induction Motors, 600V and Below - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16120	480 V Motor Control Center - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16210	Emergency Generator - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16430	Low Voltage Switchgear - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16441	Switchboards - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16441.1	Enclosed Service Entrance Circuit Breakers - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16460	Dry Type Transformers - 600 Volts and Below - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16500	Panelboards - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16250	Lighting - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	4 months before training is scheduled
16550	Grounding - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled
16600	Underground System - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled
17200	Instrument and Hard-Wired Control System Components - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled
17346	Flow Meter & Indicating Transmitter - Operations and Maintenance	Plant Staff - Operations Plant Staff - Maintenance AW SCADA	30 calendar days before training is scheduled

PART 1: -- GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Execute cleaning, during progress of the Work, and at completion of the Work.

1.2 RELATED REQUIREMENTS

- A. Each Specification Section: Cleaning for specific products or work.

1.3 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 1: -- PRODUCTS (Not Used)

PART 1: -- EXECUTION

3.1 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish. All waste materials including containers, food debris and other miscellaneous materials must be disposed of daily in on-site containers.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.2 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.

3.3 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight exposed interior and exterior surfaces.
- C. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
- D. Prior to final completion, or OWNER occupancy, CONTRACTOR shall conduct an inspection of sight-exposed interior and exterior surfaces, and all work areas, to verify that the entire Work is clean.

END

PART I - GENERAL

1.01 SUMMARY

- A. Furnish as described by this Section.

1.02 RELATED REQUIREMENTS

- A. Work as called for on PLANS, or in this or any other CONTRACT Specification Sections.
- B. This section specifies the general minimum requirements for the contract. Other more specific requirements maybe described in various sections of the specifications. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- C. Description of Requirements

- 1. General

- a. When required by individual Specification Sections or requested by OWNER, submit Operation and Maintenance (O&M) data, which is specifically applicable to the scope of work and is a complete and concise depiction of the provided equipment or product. Data containing extraneous information that has to be sorted through to find applicable instructions will not be accepted. Present information in sufficient detail to clearly explain user O&M requirements at the system, equipment, and component level. Include an index preceding each submittal.
- b. Package Content: For each product, system, or piece of equipment requiring submission of O&M data, submit the package required in the individual Specification Section.
- c. Furnish one (1) draft electronic Operations and Maintenance Manuals explaining the proper installation, operation, and maintenance for each piece of equipment supplied. Draft O&M Manuals will be reviewed by the ENGINEER for compliance with the requirements herein and Section 01300 – Submittals.
- d. CONTRACTOR to check and approve O&M Manuals for compliance with requirements of CONTRACT and will so certify by placing CONTRACTOR stamp of approval on each manual prior to submitting to ENGINEER. Any manual submitted without CONTRACTOR's stamp will not be reviewed and will be promptly returned for proper submission. OWNER may assess CONTRACTOR a charge for reviews of same items in excess of three (3) times.
- e. After all O&M Manuals are in acceptable form, CONTRACTOR to furnish to the OWNER eight (8) bound hard copies and one (1) electronic (computer-based) copies, complete sets of Operation and Maintenance Manuals consisting of printed material previously accepted by the ENGINEER for this purpose. Manuals are to be bound in a heavy duty; fabric reinforced fiberboard, three post, and expandable binder with a maximum binding

Operations and Maintenance Data
SECTION 01730

width of 5". Three-ring vinyl reinforced binders will not be acceptable. Each binder to have an index outlining all information in the set of volumes.

- f. Retainage will not be released until the Operation and Maintenance Manuals have been submitted and approved by the ENGINEER.

2. Format

- a. Provide each manual with a project cover sheet identifying – OWNER, facility name, facility address, manual volume number, number of volumes in the set, and date.
- b. Divide manual/s into sections paralleling the Equipment Class and sequence as the technical specifications; include additional and/or other specific section/s where designated and/or required.
- c. Within each manual, provide a Table of Contents for that manual. If more than one manual is necessary for a Class of Equipment, place a complete Table of Contents for that Class of Equipment within each manual of that Class.
- d. Sections shall be separated with tabbed index sheets to correlate with the Table of Contents of the manual. The front of each section shall have a cover sheet indicating the equipment sections, provide a legible copy of all vendor supplied drawings for each piece of equipment in a separate binder and include as a drawing volume in the O&M Manual/s set.
- e. Furnish each volume with a complete index for all volumes in the set. The index is to indicate the volume and section for each piece of equipment.
- f. All diagrams, drawings, and illustrations shall be of original quality, reproducible by the dry copy method.
- g. Materials in manuals to be suitable for photographic reproduction. Where copies of identical material are included, clarity and quality of copies to be equal to the original, square to the page. Faxed copies will not be accepted.
- h. Manual/Binder to be 8.5 X 11 inches. Drawings shall be 11 X 17 inches folded to 8.5 X 11 inches size for inclusion in 8.5 x11 inches manual. If 8.5 X 11 inches or 11 X 17 inches drawing is not practical, drawing/s may be folded accordingly and inserted into an envelope/tab provided in the appropriate section of the manual binder. Manual/s to be three post, hard cover, and heavy duty binders with information printed on the front cover of each binder as well as the binder backing. Paper shall be white 20-pound minimum. Each binder shall have an index outlining all information in the set of volumes. Binder size not to exceed four inches (4") thickness; as required, utilize multiple volumes of binders, numbered accordingly.

D. Types of Information Required in O&M Data Packages

- 1. Each manual shall be specific to this CONTRACT. All non-applicable information shall be neatly crossed out, and the applicable information shall be color highlighted or otherwise indicated in a manner to prevent confusion of those utilizing the manuals. The O&M Manual/s shall contain complete information on

Operations and Maintenance Data
SECTION 01730

all mechanical, electrical, instrumentation and control equipment and/or system/s furnished and installed including, but not limited to, the following:

a. Title Page/Cover Sheet

1) Identification of equipment covered by the manual by providing CONTRACT name, CIP NO., and equipment name and position tag number. These names and tag numbers will be provided to the CONTRACTOR by OWNER Representative.

2) Name of responsible principal, address, telephone number, and area of responsibility of:

a) CONTRACTOR

b) Subcontractor or installer

c) Product manufacturer

d) Nearest service center or maintenance CONTRACTOR, as appropriate

e) Nearest source of supply for parts, materials, supplies, or replacement products.

f) Neatly typewritten Title Page/Cover Sheet to include:

I. Table of Contents

II. Table of Contents

III. Bill of Materials

IV. Equipment Data Sheets

V. System and Component Description

VI. Installation Instructions

VII. Operation Procedures

VIII. Maintenance Schedule

IX. Maintenance Summary Form

X. Troubleshooting Guide

XI. Spare Parts, Part Identification, and Drawings

XII. Technical Data

XIII. Warranties, Bonds, and Service Contracts

XIV. Appendices

XV. Video of O&M training

b. Bill of Material

- 1) Detailing the model, rating and size of each specific component used in the installation. Provide a list of equipment used in the installation. List shall detail the tag name used in the installation, model number, ratings, serial numbers of all pumps, motors, electrical apparatus and instrumentation, and enough information to purchase a replacement.

c. Equipment Data Sheets

- 1) An equipment data sheet shall be prepared for each piece of equipment or product covered by the manual.
- 2) Each data sheet shall list the actual equipment nameplate data, process name, and equipment position tag number of an individual product, date of installation, and all data given on the manufacturer's equipment nameplate for that product. When the product consists of separate component; e.g., pump, coupling, and motor; the data sheet shall have separate sections for each component. When a nameplate is not supplied by the manufacturer, design data for the product shall be given.
- 3) The appropriate model/size/item shall be highlighted on all equipment data sheets submittals.

d. System and Component Description

- 1) A brief description of the system that the product is a part of, to include all other applicable components of the system.
- 2) A brief description of the relationship between the system components and how they function as a unit.
- 3) Process flow diagram with system/equipment highlighted, as applicable.

e. Installation Instructions

- 1) Manufacturer's instructions for installation of the product, to include all applicable specifications, figures, and drawings.

f. Operation Procedures

- 1) Provide written instructions (with control diagrams and other applicable information).
- 2) Applicable start-up and break-in procedures as recommended by the manufacturer, including manual and automatic mod procedures.
- 3) Normal operational procedures.
- 4) System/equipment regulating and control procedures.
- 5) Normal shutdown procedures.

- 6) Seasonal operating instructions.
 - 7) Emergency start-up and shut-down procedures.
 - 8) Special operation instructions.
- g. Maintenance Schedule
- 1) All maintenance tasks required or suggested by the manufacturer shall be listed in schedule form to include a description of the task, frequency at which the task is to be done, and other applicable information, such as type of lubricant required, amount of lubricant required or specified test/measurement limits.
- h. Maintenance Summary Form
- 1) All Operations and Maintenance Manuals are to include a Maintenance Summary Form in the format and style of the example form attached to this Section as Attachment A. Manuals will not be accepted for review without this form. The Maintenance Summary Form is to be a typed document prepared by the equipment manufacturer specifically for the equipment furnished. Title and subheadings are to be as shown on Attachment A – they are not to be modified. If a subheading is not applicable to the specific piece of equipment, it is to be noted by the words “Not Applicable” after the heading. Additional notes and comments may be added to the end of the form at the manufacturer’s discretion.
- 2) Format
- a) Size: 8½” × 11” (portrait orientation only).
 - b) Margins: Top - 1”, Left - 0.75”, Right - 0.75”, Bottom - 0.75”.
 - c) Font:
 - I. Title: Arial - 16 point - bold.
 - II. Title: Arial - 16 point - bold.
 - III. Subheadings: Arial - 12 point - bold.
 - IV. Text: Arial - 12 point - regular.
 - V. Tables: As shown in Attachment A - minimum text size Arial - 10 point - regular.
 - d) Specific Instructions
 - I. Equipment Item: Include generic name for equipment along with service and specification reference.
 - II. Manufacturer: List manufacturer’s physical address for shipping and receiving and mailing address (if different from physical

Operations and Maintenance Data
SECTION 01730

address). Include telephone number and facsimile telephone number.

- III. Equipment Identification Number(s): Provide list of equipment serial numbers cross-referenced to equipment tag numbers in tabular form. When multiple items are provided, list each item separately.
- IV. Total Weight: Note the assembled weight of the equipment.
- V. Nameplate Data: Reproduce the nameplate data exactly as it appears on the equipment. For driven equipment, include the driver nameplate data.
- VI. Manufacturer's Local Representative: Provide the name, address, and phone numbers of the local representative.
- VII. Safety precautions. List personnel hazards and equipment or product safety precautions for all operating conditions.
- VIII. Environmental Conditions: Include a list of environmental conditions (temperature, humidity, and other relevant data) for each product or piece of equipment under which it is best suited to operate.
- IX. Testing Equipment and Special Tool Information: Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.
- X. Maintenance Requirements
 - i. Maintenance Operation: List briefly each maintenance operation required to maintain warranty in effect and refer to specific information in manufacturer's standard maintenance manual.
 - ii. Preventative Maintenance: Preventative Maintenance Plan and Schedule to include manufacturer's schedule for routine preventative maintenance and inspections required to ensure proper and economical operation and to minimize corrective maintenance and repair. Provide manufacturer's projection of preventative maintenance man-hours on an annual basis.
 - iii. Recommended calibration instructions and frequency. Instructions shall provide detailed description of the procedure to calibrate the unit.
 - iv. Complete disassembly, repair, and reassemble procedures in proper step sequence.
 - v. Manufacture specification for alignment, clearances, tolerances, and adjustments where applicable.

Operations and Maintenance Data
SECTION 01730

- vi. Corrective Maintenance Man-Hours: Include manufacturer's projection of corrective maintenance man-hours. Corrective maintenance that requires participation of the equipment manufacturer to be identified and tabulated separately.
 - vii. Applicable labeled section and exploded assembly drawings, and other drawings, figures and sketches as required for clarity of instructions.
 - viii. Refer by symbol to lubricant list.
- XI. Lubricant List: List each recommended lubricant by symbol, noting generic type of lubricant, and a minimum of two manufacturers. The recommended lubrication products shall include a specific cross reference to an equivalent Exxon (Mobil) product.
- XII. CONTRACTOR's Work Order: Identify CONTRACTOR's Work order number.
- XIII. Closest Service Technician: Identify the closest, factory trained, and authorized, service technician by name, address and telephone number. Include pager number if applicable.
- XIV. Closest Parts and Service Center: List closest factory authorized parts and service center, the physical address for shipping and receiving and mailing address (if different from physical address). Include telephone number and facsimile telephone number.
- i. Troubleshooting Guides and Diagnostic Techniques
 - 1) Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or requires replacement. Emergency shutdown and troubleshooting guide. Provide information to shut down and startup the equipment under emergency conditions.
 - j. Spare Parts, Part Identification, and Drawings
 - 1) Spare Parts and Supply Lists: Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays.
 - 2) Parts Identification: Provide identification and coverage for all parts of each component and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without any further identification required. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When

**Operations and Maintenance Data
SECTION 01730**

illustrations and separate listing to show the index, reference, or key number which will cross-reference the illustrated part to be the listed part. Parts shown in the listings to be grouped by components.

- a) Manufacturer’s Standard Commercial Practice (MSCP): The parts data may cover more than one model or series of equipment, components, attachments, or accessories, such as a master parts catalog, in accordance with the manufacturer’s standard commercial practice.
- b) Other than Manufacturer’s Standard Commercial Practice (MSCP): Final assembly manufacturer may add a cross-reference to implement components’ assemblies and parts requirements when implementation in manual form varies significantly from the style, format, and method of manufacturer’s standard commercial practice. Use the format in the following example:

Final Assembly Manufacturer’s Alphanumeric Sequence	Actual Manufacturer’s Name and MSCP	Actual Manufacturer Part No.
100001	John Doe & Co. 00000	2000002

k. Technical Data

- 1) Detailed description of the function of each principal component in the system. Provide a written description of the individual components function in the overall operation outlined above.
- 2) Test procedures and factory test results if required. Provide a copy of all factory tests performed and a copy of the test results, and performance curves, where applicable.
- 3) Manufacturer’s Certified Pump Curves and field pump tests data and pump curves.
- 4) Documentation of field functional tests and performance test described in the specifications. Include the test results and calibration reports of all equipment.

l. Warranties, Warranty/Asset Management Tracking Form, Affidavits of Installation, and Service Contracts

m. Prime Contractor will remain single point of contact after final completion for all warranty work.

n. Warranty Information: List and explain the various warranties and include the servicing and technical precautions prescribed by the manufacturers or CONTRACT documents to keep warranties in force.

o. The CONTRACTOR shall complete and submit the Asset Management Tracking Form included at the end of this Section. Asset management tag

Operations and Maintenance Data
SECTION 01730

numbers along with warranty information shall be tracked using the form provided and submitted with the required affidavits at the completion of the project. The excel file of the form included will be provided to the CONTRACTOR upon request. The electronic file as well as hard copies shall be provided to the OWNER as required by the Specifications.

- p. This Asset Management Tracking Form list must be broken down in sufficient detail and approved by OWNER: Sheet to be provided any time that a warranty period is initiated per CONTRACT DOCUMENTS. Provide data for all tagged equipment and components.
- q. The OWNER will provide asset tags for equipment and the CONTRACTOR will be responsible for affixing the tags on the equipment. The CONTRACTOR shall not affix asset management tags until OWNER has accepted the installation.

1) Supplemental Documentation

a) General

- I. Manufacturer's original printed and maintenance instructions for couplings, belt drives, chain drives, or other means of equipment connection, to include applicable tolerances and specifications.
- II. Manufacturer's original printed operation and maintenance instructions for appurtenances such as solenoid valves, or hydraulic cylinder operators that are a supplied or integral part of the system or product.
- III. Calibration data sheet including set points. Include all calibration data sheets, as outlined in Calibration and Testing Section.

1.03 SUBMITTALS

- A. No hard-copy version of manuals shall be submitted prior to the approved final version of the manuals.
- B. Manuals shall be electronically transcribed matching the title, content, details, page number and sequence of the hard copy versions of the manuals.
- C. Each electronic version of the manual shall contain the latest version of Acrobat Reader software, which will allow the OWNER to access and read regardless of user's software. The CONTRACTOR can readily download software from the Internet.
- D. CONTRACTOR shall also provide a DVD video of all O&M training sessions as part of the O&M submittals.
- E. All drawings, cross-sectional view drawings, wiring diagram drawings, connection detail drawings, physical layout and detail drawings, elevations, etc., shall be developed electronically using AutoCAD® Release 14 software (or latest AutoCAD® Release).
- F. All Bill of Material sheets and/or tables indicating product data, quantities, physical location and reference, catalog number, reference, wiring diagram drawing number

Operations and Maintenance Data
SECTION 01730

reference, cost, and any other field entered in the bill of materials sheet and/or any other spreadsheets and/or any other table and/or listings of references, etc., shall all be electronically developed and submitted in a database format, using the latest version of Microsoft® Access software. This applies to all summary sheets, material listings, etc., to be submitted for this Project. Submittals shall include hard-copies and an electronic version developed in Microsoft® Access. Electronic version shall be submitted to project FTP site.

- G. AutoCAD® drawings shall be developed in full adherence to the formats and drawing standards defined in the AW CADD Manual. A copy of the manual may be obtained from the OWNER. Any drawing that is developed or customized for this project by CONTRACTOR, Subcontractor, Supplier or Manufacturer shall be developed in or converted to AutoCAD format and shall be submitted in both electronic AutoCAD format and hard copy with the O&M Manual and loaded to project FTP site.
- H. All Operation and Maintenance – Maintenance Instruction Manuals, catalog sheets, product and component data sheets, and factory and on-site (field) test reports/data shall be submitted in bound hard-copies and electronic copies. Electronic copies shall be in Adobe Acrobat® (*.pdf files) latest edition and in the source software, where possible, including MS Word, Excel, Access, or AutoCAD. Other documents not prepared using these software packages shall be submitted in Adobe Acrobat® (*.pdf files) latest edition, and shall be loaded to project FTP site.
- I. Binders and File Organization of the Electronic Copies: Clearly label each file name of the electronic version of the O&M Manuals. The volume numbers, organization of the electronic files contained within, and labeling formats shall match and be identical to those of the hard-copies. Additionally, in each electronic volume, a navigation tool shall be installed that shall guide and navigate the user to open and/or close a desired section and/or subsection (within each volume) simply by clicking on the section/subsection name and number. All labels and tables of contents shall be neatly typed and labeled. Handwritten labels and/or tables of contents will not be accepted. Organize each set (a complete series) of O&M electronic copies in the dedicated folder on the project FTP site.
- J. It is the sole responsibility of the CONTRACTOR to ensure that all data submitted by the equipment supplier has been properly translated and incorporated onto the electronic version of the manuals. All hard and electronic copies of the manuals shall match. All discrepancies and deviations between the hard and electronic copies of the manuals shall be corrected at the cost of the CONTRACTOR, unless OWNER's Representative has provided written approval of the deviation.

PART II - PRODUCTS (NOT USED)

PART III - EXECUTION

3.01 GENERAL

A. Submittal Schedule

- 1. Manuals shall be submitted according to the following schedule:

Operations and Maintenance Data
SECTION 01730

- a. The preliminary copies of manuals shall be submitted following approval of the shop drawings, and no later than the on-site delivery for each piece of equipment.
- b. The Final Operations & Maintenance Manuals will be the source documents for all manufacturer training, when specified, and subsequently for all check-out or start-up activities.

3.02 SPARE PARTS AND CONSUMABLE MATERIALS

- B. 01700A – Spare Parts and Consumable Materials Summary is a summarization of all required spare parts and consumable materials to be provided for the project. Refer to individual specification sections for more information. Non-inclusion in this list does not remove the responsibility for the Contractor to provide spare parts or consumable materials required in the individual specification sections.

3.03 MEASUREMENT AND PAYMENT

- A. All work items installed, provided, constructed, etc. with the exception of the unit price items listed in Section 00300L – Bid Form (Lump Sum), shall not be paid for separately but shall be considered subsidiary to the lump sum bid price for the Project. The cost of all work materials, labor, overhead, insurance, equipment, etc. necessary to finish the work complete in place shall be included in the lump sum bid price for the project.

ATTACHMENT A

MAINTENANCE SUMMARY FORM

- 1. **EQUIPMENT ITEM:**
- 2. **MANUFACTURER INFORMATION:**
- 3. **EQUIPMENT IDENTIFICATION NUMBER(S):**

<i>Equipment Tag Number</i>	<i>Equipment Serial Number</i>	<i>Driver Number</i>	<i>Serial</i>

- 4. **TOTAL WEIGHT:**
- 5. **NAMEPLATE DATA (HP, Voltage, Speed, etc.):**
- 6. **MANUFACTURER'S LOCAL REPRESENTATIVE:**
- 7. **MAINTENANCE REQUIREMENTS:**

<i>Maintenance Operation</i>	1. <i>Frequency</i>	<i>Lubricant (if applicable)</i>	<i>Comments</i>

- 8. **LUBRICANT LIST:**
- 9. **SPARE PARTS:**

<i>Part Description</i>	<i>Quantity</i>	<i>Part Number</i>

- 10. **CONTRACTOR'S JOB ORDER:**
- 11. **CLOSEST SERVICE TECHNICIAN:**
- 12. **CLOSEST PARTS AND SERVICE CENTER**

ARTICLE 1 - GENERAL**1.1 RELATED DOCUMENTS**

The following documents are a part of this section:

All documents in Bidding Requirements, Contract Forms and Conditions of the Contract.

Other sections of Division 1 - General Requirements apply to this section.

1.2 DESCRIPTION AND INTENT OF THE WORK

No asbestos containing material (ACM) shall be brought onto the Project site, and/or incorporated into the Project construction without the written consent of the OWNER. Any asbestos containing material found at any time including after contract completion, to have been brought onto the site or incorporated into the Project construction by the CONTRACTOR, or any Subcontractors, Sub-Subcontractors or Suppliers, shall be removed and disposed of in accordance with the then current governmental regulatory standards.

All costs associated with the inspection, sampling, testing, removal and disposal of ACM as described above shall be paid by the CONTRACTOR.

1.3 DEFINITIONS

ASBESTOS: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite) cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.

ASBESTOS CONTAINING MATERIAL (ACM): Any material containing more than one percent (1%) by weight of asbestos of any type or mixture of types.

ASBESTOS CONTAINING BUILDING MATERIAL (ACBM): Any material used in the construction of, or incorporated into the construction of, any building that contains more than one percent (1%) by weight of asbestos of any type or mixture of types.

MSDS: A material safety data sheet (MSDS) is a form containing data regarding the properties of component substances that comprise a manufactured product. They are a basic hazard communication tool that gives details on chemical and physical dangers, safety procedures, and emergency responses for chemicals.

1.4 QUALITY ASSURANCE**PROHIBITION OF ASBESTOS CONTAINING MATERIALS**

The E/A has been instructed to not permit any asbestos containing materials to be specified, requested or approved for use in conjunction with this Project.

The E/A has signed the following:

- A. 01900A Statement of Non-Inclusion of Asbestos Containing Material (E/A, Prior to Design): stating that the Engineer/Architect shall not specify, request or approve any ACM in this Project without prior written approval of OWNER.
- B. 01900B Statement of Non-Inclusion of Asbestos Containing Material (E/A, After Design): stating that the Engineer/Architect has not specified, requested or approved any ACM in this Project without the prior written approval of the OWNER, and that any ACM allowed in this Project is identified in the Statements.

These Statements are included in the Construction Documents.

The CONSULTANT shall not knowingly specify, request or approve for use any asbestos containing materials or lead-based paint without the OWNER's prior written approval. For materials specified on the basis of performance criteria, the CONSULTANT shall include a requirement in the specifications effectively stating that "Asbestos containing materials or lead-based paint are prohibited from being used in the project." When a specific product is specified, the CONSULTANT shall make best efforts to verify that the product does not include asbestos containing material. The CONSULTANT agrees to execute a Statement of Non-Inclusion of Asbestos Containing Material, on a form provided by OWNER, both prior to design and upon completion of the Construction Documents Phase.

ASBESTOS CONTAINING MATERIALS PROHIBITED FROM SITE

No asbestos containing materials will be permitted as part of the Project construction. The following list is intended to be used as a general guide to show which types of materials are suspected to contain asbestos:

- Cement Pipes
- Cement Wallboard
- Cement Siding
- Asphalt Floor Tile
- Vinyl Floor Tile
- Vinyl Sheet Flooring/vinyl wall coverings
- Flooring Backing
- Construction Mastics (floor tile, carpet, ceiling tile, etc.)
- Acoustical Plaster
- Decorative Plaster / stucco
- Textured Paintings/Coatings
- Ceiling Tiles and Lay-in Panels
- Spray-Applied Insulation
- Blown-in Insulation
- Fireproofing Materials
- Taping Compounds (thermal)
- Packing Materials (for wall/floor penetrations)
- High Temperature Gaskets
- Laboratory Gloves
- Fire Blankets
- Fire Curtains
- Elevator Equipment Panels
- Elevator Brake Shoes
- HVAC Duct Insulation
- Boiler Insulation
- Breeching Insulation
- Ductwork Flexible Fabric Connections
- Cooling Towers
- Pipe Insulation (corrugated air-cell, block, etc.)
- Heating and Electrical Ducts
- Electrical Panel Partitions
- Electric Cloth
- Electric Wiring Insulation
- Chalkboards
- Roofing Shingles / tiles / membranes
- Roofing Felt
- Roof Coatings
- Base Flashing
- Thermal Paper Products
- Fire Doors
- Caulking/Putties
- Adhesives / mastics
- Wallboard
- Joint Compounds
- Spackling Compounds
- Laboratory hoods/tabletops
- CMU block fill materials

If any of these suspect materials are specified for use on the Project, and if they do not have specific labelling identifying them as asbestos free, then the CONTRACTOR shall notify the OWNER immediately. Laboratory analysis of the material by an OWNER-approved laboratory shall be performed at CONTRACTOR's expense in order to warrant that the material does not contain asbestos. A copy of the package labelling or results of laboratory testing must be provided to the OWNER prior to inclusion of the specified material during construction. Contractor's construction submittals must include MSDSs for all new materials used in construction of buildings, facilities and infrastructure.

1.5 SUBMITTALS

NON-USE OF ASBESTOS AFFIDAVITS

At the time that the CONTRACTOR signs the Agreement, they shall sign a Non-Use of Asbestos Affidavit (Contractor Prior to Construction), Contract Document 00680. This Affidavit certifies that the CONTRACTOR agrees that they will not allow any asbestos containing materials to be incorporated into the construction of the Project or allow any asbestos containing building materials on the site for which the OWNER has not given prior written approval.

Prior to final payment, the CONTRACTOR will provide to the OWNER a Non-Use of Asbestos Affidavit (Contractor After Construction), Contract Document 00681. This Affidavit certifies that the CONTRACTOR did not allow asbestos containing materials to be incorporated into the construction or allowed any asbestos containing building materials on the site for which the OWNER of the Project did not give prior written approval.

ASBESTOS CONTAINING MATERIALS: When any asbestos containing materials are used on the Project, provide the following information:

A detailed description of the material containing the asbestos.

The type and percent of asbestos contained in the material.

The quantity of the materials used, including the square footage, or in the case of pipe insulation, the size and linear footage.

A drawing showing the exact location of any asbestos containing materials.

Final payment shall be withheld until the above described Affidavits, submittals and/or information are received and approved.

END

STATEMENT OF NON-INCLUSION OF ASBESTOS CONTAINING MATERIAL

STATE OF TEXAS
COUNTY OF TRAVIS

ENGINEER/ARCHITECT
PRIOR TO DESIGN

"My name is Lindsay Webb, hereinafter known as Authorized Representative.

"I am over the age of 18 years and I have never been convicted of a crime. I am the Project Manager of CP&Y, Inc., dba STV Infrastructure hereinafter known as ENGINEER/ARCHITECT.

"I am fully competent to make this statement. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS ENGINEER/ARCHITECT has been selected to provide designs, to prepare the bid and construction documents, and to assist the City of Austin, Texas, hereinafter known as OWNER, during the construction of Hornsby Bend BMP Headworks Improvements project, located at Hornsby Bend Biosolids Management Plant, Austin, Texas, hereinafter known as Project, and

"WHEREAS asbestos in a dust form is a recognized health hazard, and

"WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project;

"THEREFORE the ENGINEER/ARCHITECT affirms that to the best of its knowledge and belief:

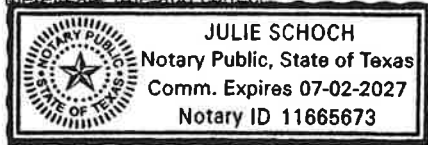
- 1. The ENGINEER/ARCHITECT, any person, firm or organization representing or represented by the ENGINEER/ARCHITECT, shall not knowingly specify, request, or approve for use in conjunction with the Project, any asbestos containing materials or any other materials defined as containing asbestos by any laws, rules or regulations promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.
2. Realizing that there might be materials required in which a satisfactory non-asbestos containing material cannot be obtained, the ENGINEER/ARCHITECT will do the following before specifying any asbestos containing material:
A. Inform the OWNER's Project Manager for this Project, in writing, of any intent to specify asbestos containing materials.
B. Receive written approval from the City of Austin Project Manager for the specifying of any asbestos containing materials.
C. At the completion of the design phase, and before the OWNER receives any bids for this Project, provide to the Project Manager, in writing, the proposed location of any asbestos containing materials, the type of asbestos they contain, and the percent of asbestos by types.
3. The ENGINEER/ARCHITECT states its understanding that if any asbestos containing materials not approved by the OWNER for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been knowingly specified, requested and/or approved by the ENGINEER/ARCHITECT for inclusion in the Project, the OWNER shall look to the ENGINEER/ARCHITECT for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.
4. ENGINEER/ARCHITECT further understands that OWNER shall also look to the ENGINEER/ARCHITECT for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have been knowingly specified, requested and/or approved by the ENGINEER/ARCHITECT.
5. ENGINEER/ARCHITECT further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the ENGINEER/ARCHITECT by any and every means within OWNER's right and power.

Signature of Authorized Representative: [Handwritten Signature]

STATE OF TEXAS
COUNTY OF TRAVIS Williamson

ON April 30, 2024, personally appeared Lindsay Webb

and been duly sworn by me, subscribed to the foregoing statement and has stated that the facts stated therein are true and correct.



Notary Public, State of Texas [Handwritten Signature]
Printed Name of Notary Julie Schoch
My Commission Expires: 7-2-2027

01605A.00/110392

STATEMENT OF NON-INCLUSION OF ASBESTOS CONTAINING MATERIAL

STATE OF TEXAS
COUNTY OF TRAVIS

ENGINEER/ARCHITECT
AFTER DESIGN

"My name is Lindsay Webb, hereinafter known as Authorized Representative.

"I am over the age of 18 years and I have never been convicted of a crime. I am the Project Manager of STV Incorporated hereinafter known as ENGINEER/ARCHITECT.

"I am fully competent to make this statement. I have personal knowledge of the facts set forth below and they are all true and correct.

"WHEREAS ENGINEER/ARCHITECT has been selected to provide designs, to prepare the bid and construction documents, and to assist the City of Austin, Texas, hereinafter known as OWNER, during the construction of Hornsby Bend BMP Headworks Improvements Project, located at Hornsby Bend Biosolids Management Plant Austin, Texas, hereinafter known as Project, and

"WHEREAS asbestos in a dust form is a recognized health hazard, and
"WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project;
"THEREFORE the ENGINEER/ARCHITECT affirms that to the best of its knowledge and belief:

- 1. The ENGINEER/ARCHITECT, any person, firm or organization representing or represented by the ENGINEER/ARCHITECT, shall not knowingly specify, request, or approve for use in conjunction with the Project, any asbestos containing materials or any other materials defined as containing asbestos by any laws, rules or regulations promulgated by the United States Government, the State of Texas or any governmental organization or agency operating under the authority of either of those entities.
2. The only exceptions to the above statement are the following materials that are required because a satisfactory non-asbestos containing material cannot be obtained. The inclusion of these materials has been approved by the OWNER's Project Manager for this Project.

N/A

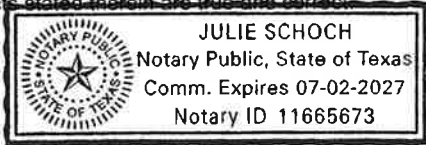
- 3. The ENGINEER/ARCHITECT states its understanding that if any asbestos containing materials not approved by the OWNER for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been knowingly specified, requested and/or approved by the ENGINEER/ARCHITECT for inclusion in the Project, the OWNER shall look to the ENGINEER/ARCHITECT for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.
4. ENGINEER/ARCHITECT further understands that OWNER shall also look to the ENGINEER/ARCHITECT for any and all damages to OWNER which result from the inability of the OWNER to use any portion or all of the Project due to the incorporation of asbestos containing materials that have been knowingly specified, requested and/or approved by the ENGINEER/ARCHITECT.
5. ENGINEER/ARCHITECT further understands that OWNER will pursue reimbursement of any said cost and compensation for any said damages from the ENGINEER/ARCHITECT by any and every means within OWNER's right and power.

Signature of Authorized Representative:

STATE OF TEXAS
COUNTY OF TRAVIS-Williamson

ON Feb 23, 2020, personally appeared Lindsay Webb

and been duly sworn by me, subscribed to the foregoing statement and has stated that the facts stated therein are true and correct.



Notary Public, State of Texas

Printed Name of Notary Julie Schoch

My Commission Expires: 07-02-2027

01605B/110392

PART 1 GENERAL

1.01 SCOPE

- A.** This section covers the excavation, handling, loading, temporary storage, transportation and disposal of contaminated soils and water encountered during the installation of the planned HB Headworks improvements located at Hornsby Bend Biosolids Management Plant. An environmental assessment of the project area to indicate the presence/absence of contaminated soils and groundwater has NOT been performed. Regardless, if the CONTRACTOR encounters, during excavation and/or earth moving for the work, soil or groundwater that is contaminated, discolored, has a noticeable odor or is otherwise out of the ordinary, the CONTRACTOR shall immediately notify the OWNER and follow the procedures set forth in this Section.

1.02 REGULATORY REQUIREMENTS

- A.** Work covered under this section shall be performed in accordance with all applicable local, state, and federal regulations, statues, codes, rules, ordinances and policies. In the event of a conflict, the more stringent standards shall apply. Applicable regulations and laws include, but are not limited to:
- *Code of Federal Regulations, Title 29, Part 1910.120 Hazardous Waste Operations and Emergency Response (29 CFR § 1910.120).* U.S. Government Printing Office, Washington, DC.
 - RG-022 – Texas Natural Resource Conservation Commission. *Classifying and Coding of Industrial and Hazardous Waste.* Austin, TX.
 - SW-846 - U.S. Environmental Protection Agency. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Vol. I.* Washington, DC.
 - *Texas Administrative Code, Title 30, Chapter 335 (30 TAC § 335).* Office of the Secretary of State, Austin, TX.
 - *Texas Administrative Code, Title 30, Chapter 350 (37 TAC § 350).* Office of the Secretary of State, Austin, TX.
 - *Texas Administrative Code, Title 37, Chapter 16 (37 TAC § 16).* Office of the Secretary of State, Austin, TX.
 - *Austin City Code, Volume 1, Title IV § 4-1-82*
 - *Austin City Code, Volume 1, Title XVIII § 18-2-003*

1.03 HEALTH AND SAFETY

- A.** The CONTRACTOR shall be responsible for developing, implementing, and maintaining a health and safety program for their personnel including subcontractors. Prior to commencement of work, the CONTRACTOR shall submit a site-specific Health and Safety Plan (HASP) to the OWNER for review. *The HASP shall be prepared and signed by a certified safety professional (CSP) or a certified industrial hygienist (CIH).* The resume of the CSP or CIH shall be submitted as an attachment

to the HASP and shall document their qualifications and applicable experience. In addition to the health and safety requirements as described in the sewer construction sections, the HASP shall address exposure of workers to contaminated soil and groundwater, temporary storage, transportation and disposal of contaminated materials. The HASP shall be prepared in accordance with the requirements of 29 CFR 1910.120 and shall contain, at minimum, the following sections:

- Project Description
- Site Description
- Summary of Field Activities
- Listing of Field Staff including Project Manager, On-site Manager, and Health and Safety Officer
- Emergency Contact Information
- Site Control Measures
- Identification of Environmental Hazards
- Protective Equipment
- Exposure Limits for Chemicals of Concern
- Monitoring Requirements and Action Levels
- Decontamination Procedures
- Disposal Procedures
- Employee Training Records
- Resume of CSP or CIH

1.04 RECORD KEEPING

- A.** When performing work within the scope of this section, the CONTRACTOR shall be responsible for maintaining a Project record on-site that includes:
1. A copy of the CONTRACTOR's HASP;
 2. A daily sign in sheet including the signatures of all personnel, regardless of affiliation, who enter the site acknowledging that they;
 - i. Have read and understood the CONTRACTOR'S Site Specific HASP;
 - ii. Meet the training requirements described in the CONTRACTOR HASP; and
 - iii. Have been made aware of potential site hazards including environmental hazards.
 3. A copy of all waste manifests or load tickets generated during the transport of contaminated soils or water in accordance with Section 3.07 of this Section.
 4. A copy of all waste manifests or scale tickets generated during the disposal of contaminated soils or water in accordance with Section 3.08 of this Section.

PART 2 PRODUCTS

2.01 PLASTIC SHEETING

- A.** The CONTRACTOR shall use plastic sheeting at least 6 mil thick for lining of all trucks, transport vehicles, soil stockpiles, and roll-off boxes.

- B.** Plastic sheeting shall be used and or applied in a manner to prevent migration of soils and contaminants from soils. Soil stockpiles must be placed on, and covered by, plastic sheeting. Under no circumstances will leakage of fluids from soil stockpiles, roll-off boxes or transport trucks be allowed.

PART 3 EXECUTION

3.01 EXCAVATION

- A.** During excavation of soils as required by the work, the CONTRACTOR shall place all excavated soils into soil stockpiles or lined roll-off containers in the designated staging area. For areas beyond the originally identified location, the CONTRACTOR shall notify the OWNER if soil or groundwater is encountered that is contaminated, discolored, has a noticeable odor or is otherwise out of the ordinary. This notification shall be made immediately upon encountering contaminated soil and groundwater beyond the limits initially identified.
- B.** If the excavation fills with water such that the CONTRACTOR cannot perform construction activities in accordance with the construction sections, the OWNER shall determine, if the water is potentially contaminated in accordance with Section 3.03 of this section. The CONTRACTOR shall collect water that is found to be potentially contaminated in a clean temporary storage tank.

3.02 MONITORING

- A.** During excavation activities, the CONTRACTOR shall be responsible for monitoring the excavation for potentially hazardous vapor concentrations and preventing exposure of workers to contaminated media in accordance with their health and safety plan.
- B.** If contaminated soils or groundwater, (soil or groundwater that is discolored, has a noticeable odor or is otherwise out of the ordinary) are encountered in areas beyond the originally identified location, CONTRACTOR shall immediately notify the OWNER or OWNER'S REPRESENTATIVE, who will screen excavated soils. The CONTRACTOR shall abide by the directions of the OWNER'S REPRESENTATIVE and shall provide the OWNER'S REPRESENTATIVE the opportunity to screen soils in accordance with the following procedure:
 - 1. The OWNER'S REPRESENTATIVE will screen excavated soil with a photoionization detector (PID). If OWNER or OWNER's REPRESENTATIVE determines that readings are above pre-determined action levels, the CONTRACTOR shall stage soils in soil stockpiles or roll-offs separate from other fill materials.
 - 2. If the OWNER'S REPRESENTATIVE determines that soils are contaminated by visual inspection or odor, the CONTRACTOR shall stage soils in soil stockpiles or roll-offs separate from the other fill materials.

3.03 COLLECTION OF SAMPLES

- A.** The OWNER or OWNER'S REPRESENTATIVE will collect soil samples from stockpiled soil that is suspected to be contaminated, confirmation samples from clean soil stockpiles, and samples of potentially contaminated groundwater based on the procedures defined in Section 3.02 of this section. The OWNER shall pay for any testing undertaken for soil that is suspected of contamination due to existing conditions. The OWNER or OWNER'S REPRESENTATIVE will perform waste characterization (testing) of the soil and water, and the CONTRACTOR shall abide by the waste characterization decisions of the OWNER. Depending on the type of contamination discovered, testing duration may be up to three (3) weeks. Testing may need to be conducted on an ongoing basis as additional contaminated soil is discovered. Soils that are thought to be contaminated must remain in the staging area and protected from rainfall and contact by the CONTRACTOR until the OWNER determines how the soil is to be disposed in accordance with Section 3.07 of this Section.

3.04 TEMPORARY STORAGE

- A.** Soils that are determined by the OWNER or OWNER'S REPRESENTATIVE to be potentially contaminated by shall be staged in soil stockpiles or roll-off containers separately from soils that are to be used as fill. Soil stockpiles shall be placed on, and covered by, plastic sheeting. Roll-off containers shall be covered to prevent accumulation of water in the container. The roll-off containers shall be located so that they do not block surface drainage pathways, or prevent access to storm sewer inlets or manholes. The CONTRACTOR must ensure that roll-off containers and soil stockpiles are completely sealed and covered. The CONTRACTOR will be responsible for replacing or repairing any roll-off box found to be leaking or in poor condition.
- B.** Water that is determined by the OWNER or OWNER'S REPRESENTATIVE to be contaminated shall be collected as required to allow work. Such water shall be collected and temporarily stored in clean, sealed tank(s) by CONTRACTOR. The CONTRACTOR shall place tank(s) such that they do not block surface drainage pathways, storm sewer inlets or manholes. The CONTRACTOR shall be responsible for repairing or replacing any tanks that are found to be leaking or in poor condition.
- C.** During storage, contaminated soil and groundwater containers shall be placed within designated or approved areas. The limits of these areas shall be indicated via barricades, flagging, and/or fencing and access to storage areas shall be restricted.

3.05 CLASSIFICATION OF SOILS AND WATER

- A.** The OWNER or OWNER's REPRESENTATIVE will determine the waste classification of soils and groundwater for the purpose of proper disposal.
- B.** Confirmation samples collected from clean soil must have Total Petroleum Hydrocarbon (TPH) concentrations, as measured by Method TX 1005, less than 60 mg/kg per Texas Risk Reduction Program Tier 1 Protective Concentration Levels. Soils with TPH concentrations greater than 60 mg/kg but less than 1500 mg/kg are

classified as Class 2 industrial non-hazardous waste and must be disposed in accordance with Section 3.07 at a permitted Class 2 industrial waste landfill.

- C. Soils with TPH concentration greater than or equal to 1500 mg/kg are classified as Class I industrial non-hazardous wastes and must be disposed at a permitted Class I landfill.
- D. Groundwater with TPH concentrations less than 0.73 mg/L is unregulated and can be disposed of by the contractor in accordance with city stormwater disposal regulations. Groundwater with TPH concentrations greater than 0.73 mg/L but less than 1500 mg/l TPH concentration is classified as Class 2 industrial, non-hazardous waste. Groundwater with TPH concentration greater than or equal to 1500 mg/l must be classified as Class I industrial non-hazardous waste.

3.06 TRANSPORTATION

- A. The CONTRACTOR shall perform transport operations in a manner that precludes the spread of contamination. The CONTRACTOR shall remediate waste spillage in transport in accordance with applicable requirements of 30 TAC 335.93, 330.34, and other applicable Federal, State, and local regulations at no additional cost to the OWNER.

Open waste transport vehicles shall be covered by the CONTRACTOR prior to leaving the project site. Covers shall be constructed from water-resistant material with sufficient strength to withstand wind loads during transit. Covers shall effectively prevent release of dust from the transport vehicle. Covers shall have tie-downs or other restraint mechanisms necessary to securely fasten them to the transport vehicle.

Waste transport vehicles shall not leave the project site until the OWNER or OWNER'S REPRESENTATIVE signs the waste manifest as generator of the waste. The CONTRACTOR shall not sign any waste manifest or shipping papers as generator. Payment will not be made for any waste shipment that leaves the site without signatory approval of OWNER or OWNER's REPRESENTATIVE.

The CONTRACTOR shall line all trucks transporting potentially contaminated or known contaminated soils with plastic liner as described in Section 2.01 of this section. The liner shall be secured in such a manner as to prevent the leaking of liquid materials from the truck bed. The CONTRACTOR shall be responsible for ensuring that trucks leaving the site are NOT leaking liquid materials, and shall be responsible for sealing or re-lining any trucks that are leaking liquids. The CONTRACTOR shall also be responsible for clean-up of any releases.

- B. The CONTRACTOR shall retain a copy of all waste manifests and load tickets for each waste shipment prior to off-site transportation, for record purposes. The CONTRACTOR shall submit a copy of all waste manifests and load tickets to the OWNER within THREE (3) business days of transport. The CONTRACTOR shall notify the OWNER whenever a waste shipment does not arrive at the approved disposal site in a timely manner.

The CONTRACTOR will inspect vehicles before they enter or exit the Project site to verify compliance with decontamination criteria provided in Part A of this Section. The CONTRACTOR shall be responsible to remedy deficiencies identified by OWNER or OWNER REPRESENTATIVES.

- C. All transport vehicles shall be properly licensed, labeled and placarded in a manner consistent with TCEQ and DOT regulations for material being transported.

3.07 DISPOSAL

- A. The CONTRACTOR shall submit contact information for off-site hazardous and non-hazardous waste transfer, storage, processing, and disposal facilities prior to the commencement of work to the OWNER for approval. The OWNER or appointed representative must review and approve of all off-site disposal facilities prior to commencement of work. In the event that the CONTRACTOR does not receive approval from the OWNER or the appointed representatives for the selected off-site disposal facility prior to starting work, the CONTRACTOR will be responsible for all costs incurred in identifying an alternative off-site disposal facility and the cost of staging any contaminated material until a facility acceptable to the OWNER is identified.
- B. The CONTRACTOR shall retain a copy of all waste manifests, certificates of disposal, and load or weight tickets from disposal facility on-site for the duration of the project and submit copies of the waste manifests, certificates of disposal, and load or weight tickets with the corresponding Application for Progress Payment.

3.08 DECONTAMINATION

- A. The CONTRACTOR shall be responsible for preventing the spread of contaminated material beyond the excavation and temporary storage areas. To accomplish this, the CONTRACTOR shall include, as part of the health and safety plan, written procedures for decontamination of personnel and equipment, including transport vehicles that come in contact with potentially contaminated material.
- B. The CONTRACTOR shall establish exclusion and contamination reduction zones around the excavation when potentially contaminated soils and/or water are encountered. The exclusion zone is the zone around the excavation and the temporary storage piles and/or tanks. All personnel and equipment entering or exiting the exclusion zone must do so through the contamination reduction zone. The contamination reduction zone includes all of the equipment and materials necessary to clean workers and equipment, and to collect all decontamination materials and water for proper disposal.
- C. The CONTRACTOR shall be responsible for all fines, penalties, or citations resulting from non-conformance with these sections.

PART 4 MEASUREMENT AND PAYMENT

4.01 Work Includes

- A.** Provide all labor, equipment, and materials to excavate, handle, load, place in temporary storage, transport, and dispose of contaminated soils and groundwater in accordance with this section.

4.02 Measurement

- A.** Soils- Measurement of soils will be based on tons of waste received and disposed at the approved off-site facility as weighed on a certified scale at the disposal facility. Submittal of certificates of disposal and weight tickets will be required for all nonhazardous solid wastes prior to the OWNER's recommendation for payment. Submittal of final waste manifests will be required for Class I industrial nonhazardous solid wastes prior to the OWNER's recommendation of payment. Soils transported and disposed of off-site shall contain no free liquids.
- B.** Water - Measurement of bulk liquid nonhazardous wastes will be based on gallons of wastewater received and disposed at the approved facility/location as measured at the disposal facility/location by a means accepted by the OWNER. Measurement of nonhazardous liquid wastes in drums, barrels or other containers will be based on the number of waste containers received and disposed at the off-site facility. Submittal of certificates of disposal and load tickets will be required for all nonhazardous liquid wastes prior to the OWNER's recommendation of payment. Submittal of final waste manifests will be required for Class I industrial nonhazardous wastes prior to the OWNER's recommendation of payment.

- 4.03 Payment – Payment for soil and water disposal under this section shall be all inclusive of all costs associated with disposal of this material, including but not limited to fees, temporary storage, loading and unloading storage containers, decontamination of equipment if required, and any and all other costs associated with disposal of this material.

Payment for Contaminated Soil and Water will be covered by the Allowance Item in Section 00300L. The total aggregate Allowance amount for Contaminated Soil and Water will not exceed the Allowance value.