



City of Prairie View, Texas

Mayor, Ron Leverett

Request for Bids

For

Villa Capri Subdivision Wastewater Pump Station

Bid Due: **AUGUST 19, 2022 No later than 3:00 PM**

Bid Delivery Location: **City of Prairie View, City Hall**
44500 Business Highway 290
Prairie View, Texas 77446

Engineer of Record: **Trilogy Engineering Services**
650 N. Sam Houston Parkway E., Suite 300
Houston, Texas 77060
877-463-1699

**Request for Competitive Bids
for
Construction Services
for the
City of Prairie View
Villa Capri Wastewater Pump Station
Project No. CIP 22-001**

City of Prairie View, Texas

Bid Due: August 19, 2022, No later than 3:00 PM

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I. BACKGROUND

1. General Description

The City of Prairie View, Texas (the “City”) invites the submittal of responses to this Request for Bids (RFB) from qualified firms interested in providing construction services in connection with the construction of the Villa Capri Subdivision Wastewater Pump Station.

The Project has been designed by Trilogy Engineering Services. The Project is anticipated to include some or all of the following items within its scope: Contractor to furnish all labor, materials, equipment, and incidentals to construct a fully functional electric powered submersible duplex pump station. The City has installed a circular wet well and a 4-inch force main which shall be used to complete the project. This project is a performance specification project. Each proposer shall provide a complete list of all components to be provided based on the equipment available as standard equipment for the manufacturer. The engineer of record, Trilogy Engineering Services, has provided the performance requirements of the station and a general configuration layout of the pump station. Manufacture’s exact configuration will be part of the proposer’s submittal.

Responses are solicited for this service in accordance with the terms, conditions, and instructions set forth in the RFB guidelines.

2. Purposes of RFB

The City issues this RFB seeking competitive sealed Bids in accordance with Chapter 2269 of the Texas Government Code for the construction of a Project further described in Section III, Scope of Work.

The City seeks the lowest responsible bidder, as that term is used in section 2269.101. In accordance with section 2269.055, the City will determine the lowest responsible bidder based on the criteria described as follows:

1. the price;
2. the offeror's experience and reputation;
3. the quality of the offeror's goods or services;
4. the impact on the ability of the City to comply with rules relating to historically underutilized businesses;
5. the offeror's safety record;
6. the offeror's proposed personnel;
7. whether the offeror's financial capability is appropriate to the size and scope of the project; and
8. prior business history with the City .

Bidder shall use the bid form in this package to include pricing information and provide the additional information requested in this section in a format deemed appropriate by bidder.

Location:

The facility will be located on Marie Antoinette Drive, Prairie View, Texas 77446.

3. Project Duration

The City has established a target commencement date for construction activities as 10/1/2022, and The Work shall be substantially complete within One Hundred Fifty (150) Calendar Days from the notice to proceed date. The City reserves the right to phase the construction of the Project or modify the schedule as needed and determined by the City Council or staff due to modifications in scope.

4. Project Budget

This includes all incidental and contingent expenses associated with the construction of the Project.

5. To Be Opened

The City will be accepting sealed Bids until 8/19/2022, at which time they will be opened publicly and the name of the offeror and the monetary component of the Bids shall be read aloud. Any Bid received after bidding time will be returned unopened. Receipt of response does not bind the City to any contract for said services, nor does it give any guarantee that a contract for the Project will be awarded.

Offerors shall return **1 clearly marked original and 2 copies** of their Bids to:

City of Prairie View

City Hall Building

44500 Business Highway 290

Prairie View, Texas 77446,

in an envelope or package no smaller than 8-1/2” X 11” and clearly marked in the lower left hand corner:

SEALED BID

Submitting Company Name: _____

Villa Capri Subdivision Wastewater Pump Station

Project No. CIP 22-001

[insert date]

6. Pre-bid Conference

A pre-bid conference for all interested parties will be held at City Hall Building at 8/02/22 3PM. It is highly recommended that all parties interested in submitting a bid for this work be present. Authorized access letters, if required, will be issued at this conference.

7. Bid Bond

Each Bid must be accompanied by an approved Bid Bond in the amount of **5%** of the Bid cost, payable to the City of Prairie View without recourse, as a guarantee bidder will enter into a contract at the stated price. The successful bidder must execute 100% performance and payment bonds on the forms provided, within ten (10) days after the contract has been awarded.

8. Rights Reserved

Bids shall remain open and may be held by the City for Ninety (90) days for full evaluation and ranking of offerors. Based on its sole discretion, the City reserves the right to determine the propriety of any bid and may disqualify any bidder based on an incomplete, inaccurate, or noncompliant bid. The City reserves the right to reject any or all of the Bids, to waive formalities, and to make an award to an offeror as outlined in this RFB. Bidders will be notified in writing of any determinations made by the City pursuant to this section.

9. Disclosure

The State of Texas Local Government Code (Chapter 176) requires that all vendors seeking to do business with the City file a disclosure questionnaire identifying any business relationship they have with a city council member or the mayor. For more information or to obtain the Questionnaire CIQ, go to the Texas Ethics Commission web page at: www.ethics.state.tx.us/forms/CIQ.pdf. The disclosure questionnaire **must be submitted with your Bid**.

10. Certificate of Interested Parties

State of Texas Local Government Code (Chapter 2252) states that the City may not enter into a contract with a business entity unless and until the business entity has submitted a Certificate of Interested Parties (hereafter referred to as “Form 1295”) to the City for filing with the Texas Ethics Commission (hereafter referred to as “TEC”). Instructions for completing this form included at https://www.ethics.state.tx.us/whatsnew/elf_info.form1295.htm. Form 1295 **must be submitted with your Bid**

11. Questions and Addenda

Questions regarding this RFB or the services requested must be sent to Ramiro Bautista, Ph.D, City of Prairie View, Project Manager (projectmanagement@prairieviewtexas.gov, 936-857-3711) or Jong Seong, PE, Trilog Engineering Services, City Engineer (seongjh@trilogengineers.com, 877-463-1699) before 7/29/2022. Any changes, additions, or clarifications to the RFB are made by amendments (addenda) and will be posted on the public purchase website. Any respondent in doubt as to the true meaning of any part of the RFB or other documents may request an interpretation from the City. At the request of the respondent, or in the event the City deems the interpretation to be substantive, the interpretation will be made by written addendum issued by the City. Such addendum will be attached to the original RFB in the public purchase file and will become part of the RFB package having the same binding effect as provisions of the original RFB. It shall be the respondent(s) responsibility to ensure that they have received all Addenda with respect to this project. Furthermore, respondents are advised that they must recognize, comply with, and attach a signed copy of each Addendum, which shall be made part of their submittal. Respondent(s) signature on Addenda shall be interpreted as the respondent’s recognition and compliance to official changes as outlined by the City and as such are made part of the original RFB documents. Failure of any respondent to receive any such

addendum or interpretation shall not relieve such Respondent from its terms and requirements. No verbal explanations or interpretations will be binding. The City does not assume responsibility for the receipt of any addendum sent to respondents.

12. RESTRICTIONS ON COMMUNICATION

Respondent(s) are prohibited from communicating with City Council Members and City staff regarding the RFB or bids from the time the RFB has been released until the contract is awarded. These restrictions extend to “thank you” letters, phone calls, emails and any contact that results in the direct or indirect discussion of the RFB or bid submitted by Respondent. Violation of this provision by Respondent or its agent may lead to disqualification of Respondent’s proposal from consideration.

Exceptions to the restrictions on communication with City employees include that Respondents may ask verbal questions concerning this RFB during the pre-bid conference or submit clarification requests pursuant to “Questions and Addenda” Section.

13. INVITATION FOR RESPONSES PREPARATION COSTS

Issuance of this RFB does not commit the City, in any way, to pay any costs incurred in the preparation and submission of a response. All costs related to the preparation and submission of this RFB shall be borne by the respondent.

II. OBJECTIVES

The City proposes to retain a highly qualified, capable firm to act as its general contractor for the construction of the Project. Firms who participate in this RFB process are sometimes referred to as “Bidders,” “Respondents,” and “Offerors.” The City will give prime consideration to the Offerors with significant, current experience in the management and construction of similar projects. Experience in construction of similar types of projects is essential.

III. SCOPE OF WORK

The City anticipates the scope of work to consist of the following responsibilities:

The City anticipates the following items will be included in the scope of the Project: Contractor to furnish all labor, materials, equipment, and incidentals to construct a fully functional electric powered submersible duplex pump station. The City has installed a circular wet well and a 4-inch force main which shall be used to complete the project. This project is a performance specification project. Each proposer shall provide a complete list of all components to be provided based on the equipment available as standard equipment for the manufacturer. The engineer of record, Trilogy Engineering Services, has provided the performance requirements of the station and a general configuration layout of the pump station. Manufacture’s exact configuration will be part of the proposer’s submittal; and all other appurtenances necessary to complete the Project. The Project will be designed and constructed so as to meet all applicable federal, state, and local accessibility standards.

The selected Offeror will be also responsible for: obtaining all applicable permits and inspections; providing all necessary performance and payment bonds and insurance requirements; and providing the City with all manufacturers' warranties and all operations and maintenance (O & M) manuals for all equipment installed.

The following represents a summary of the proposed improvements:

- Villa Capri Wastewater Pump Station
- Contractor to furnish all labor, materials, equipment, and incidentals required to construct, intall, provide start up and training for a duplex pump wastewater pump station.
- Contractor shall utilize the existing wet well and force main previously installed by the City of Prairie View. All equipment will conform to these existing facilities. Any modifications will be included in the lump sum price, if required.
- Miscellaneous appurtenances necessary for to complete the Project.

IV. SELECTION PROCESS

Respondents should prepare a sealed Bid responsive to all information requested in this RFB.

The City will select the lowest responsible bidder who submits the Bid that meets the criteria in this request. The City reserves the right to and may contact Offerors with questions or clarifications relating to that Offeror's response to this RFB.

The bid set of Contract Documents, including the forms for the Contract Agreement between Owner and Contractor, Bid Form (Exhibit B to the Contract Agreement), the Standard General Conditions of the Contract, the Insurance Rider (Exhibit A to the General Conditions), the Special Conditions, the Technical Specifications, the requisite bond forms, and the Drawings and Specifications are included with this RFB for Offeror evaluation prior to submission of a Bid.

Each Bid, completed and signed by person(s) authorized to bind individual, partnership, firm, corporation, or any other legal entity, shall include the following in one envelope furnished by bidder:

- 1 clearly marked original and 2 copies of their Bids
- Acknowledgment of receipt of Addenda issued in spaces provided in Bid form.
- Required bid guaranty.

- Copy of Articles of Incorporation, Partnership Agreements and resolution or board minutes empowering signatory to bind bidder, attested by an officer of bidder.
- One copy of Insurance, completed and signed.
- Other Required information indicated in Drawings or Contract Documents.

Bid shall include all specified items in this section and be placed in envelopes furnished by bidder, sealed and clearly identified on outside as a Bid to the City, with bidder’s name and address, and project name. Failure to submit Bid in these envelopes may subject bidder to disqualification. Bid must be delivered in person, by United States Mail, or by private courier service.

**The City of Prairie View
City Hall Building
44500 Business Highway 290
Prairie View, Texas 77446**

When sent by in person, by United States Mail, or by private courier service, sealed Bid (marked as indicated above) shall be enclosed in an additional envelope clearly identified on outside as a Bid to the City with bidder’s name and address, Project name, and Bid date and time. It is the sole responsibility of bidder to ensure timely delivery of Bid. The City will not be responsible for failure of service on the part of the U.S. Post Office, courier services, or any other form of delivery service chosen by bidder.

Each submittal shall contain 1 clearly marked original and 2 copies of their Bids. Bids shall include all specified items in this RFB. Failure to submit any required item may subject bidder to disqualification.

BID SCHEDULE

DATE	MILESTONE
[7/20/2022]	RFB advertised and posted
[8/02/2022]	Pre-Bid Conference
[8/05/2022]	Deadline for questions and requests for clarification (Addenda)
[8/19/2022]	Bid submission deadline/Bid opening
[9/06/2022]	Anticipated Approval & Award of Contract by City Council

V. AWARD OF CONTRACT

1. The City reserves the right to reject any and all Bids, to waive any and all formalities not involving price, time, or changes in the work with the successful bidder, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. The City also reserves the right to reject the Bid of any bidder if the City believes that bidder has not demonstrated that bidder is a responsible bidder. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
2. In evaluating Bids, the City will consider whether or not the Bids comply with the prescribed requirements, and such alternatives, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
3. If the Contract is to be awarded, it will be awarded to the lowest responsible bidder.
4. If the contract is to be awarded, the City will give the successful bidder a Notice of Award within ninety (90) days after the day of the Bid opening.
5. The City reserves the right to increase the value of the contract by adding alternatives described in the Proposal.

VI. ADDITIONAL INSTRUCTIONS, NOTIFICATIONS, AND INFORMATION

1. All Information True

Respondent represents and warrants to the City that all information provided in the response shall be true, correct and complete. Respondents who provide false, misleading, or incomplete information, whether intentional or not, in any of the documents presented to the City for consideration in the selection process shall be excluded.

2. Inquires

Do not contact the City during the selection process to make inquiries about the progress of this selection process. Such contact may result in disqualification. Respondents will be contacted when it is appropriate to do so.

3. Cost of Responses

The City will not be responsible for the costs incurred by anyone in the submittal of responses.

4. No Obligation

By publishing this request for bids, the City is under no obligation to enter into a contract with bidder and reserves the right to cancel the entire process.

5. Equal Employment Opportunity

Respondent agrees that it will not discriminate in hiring, promotion, treatment, or other terms and conditions of employment based on race, sex, national origin, age, disability, or in any way violate Title VII of 1964 Civil Rights Act and amendments, except as permitted by said laws.

6. Independent Contractor

It is expressly understood and agreed by both parties hereto that the City is contracting with the successful Respondent as independent contractor. The parties hereto understand and agree that the City shall not be liable for any claims which may be asserted by any third party occurring in connection with the services to be performed by the successful Respondent under this contract and that the successful Respondent has no authority to bind the City.

7. Respondent's Employees

Neither the Respondent nor his/her employees engaged in fulfilling the terms and conditions of any awarded contract shall be employees of the City. The method and manner of performance of such undertakings shall be under the exclusive control of the vendor on contract. The City shall have the right of inspection of said undertakings at any time.

8. Confidential Information

A. Any information deemed to be confidential or proprietary by the Respondent should be clearly annotated on the pages where confidential or proprietary information is contained. The City cannot guarantee that it will not be required to disclose all or part of any public record under Texas Public Information Act, since information deemed to be confidential or proprietary by the Respondent may not be confidential or proprietary under Texas Law, or pursuant to a Court order. Pursuant to the Texas Public Information Act, the City must disclose certain contracting information and the law presumes that most contracting information is public. Certain types of contracting information must generally be released under the Act: overall price; price and description of items or services to be delivered; delivery and service deadlines; remedies for breach of contract; identity of the parties to the Contract; execution and effective dates; and information connected to a vendor or contractor's performance on the Contract. Additionally, information regarding performance under the Contract, including breaches of the Contract, Contract variances, amendments, liquidated damages, and other penalties for non-performance, must generally be released under the Public Information Act.

B. The requirements of Subchapter J, Chapter 552, Government Code, may apply to this RFB and the contractor or vendor agrees that the Contract can be terminated if the contractor or vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

9. Jurisdiction

Contract(s) executed as part of this solicitation shall be subject to and governed under the laws of the State of Texas without regard to its conflict of law principles. Any and all obligations and payments are due and performable and payable in Waller County, Texas.

10. Venue

The parties agree that exclusive venue for purposes of any and all lawsuits, cause of action, arbitration, or any other dispute(s) arising from this bid or any resulting contract shall be in a state district court in Waller County, Texas.

11. Conflict of Interest

Chapter 176 of the Texas Local Government Code requires that any vendor or person considering doing business with a local government entity must disclose in the Questionnaire Form CIQ, the vendor or person's affiliation or business relationship that might cause a conflict of interest with a local government entity. This questionnaire must be filed, by law, with the City no later than the 7th business day after the date the person becomes aware of facts that require the statement be filed. See Section 176.006, Local Government Code. A person commits an offense if the person violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor. For more information or to obtain the Questionnaire CIQ go to the Texas Ethics Commission web page at www.ethics.state.tx.us/forms/CIQ.pdf.

IF YOU HAVE ANY QUESTIONS ABOUT COMPLIANCE, PLEASE CONSULT YOUR OWN LEGAL COUNSEL. COMPLIANCE IS THE INDIVIDUAL RESPONSIBILITY OF EACH PERSON OR AGENT OF A PERSON WHO IS SUBJECT TO THE FILING REQUIREMENT. AN OFFENSE UNDER CHAPTER 176 IS A MISDEMEANOR.

12. Certificate of Interested Parties

Pursuant to Section 2252.908, Texas Government Code, as amended and formal rules released by the Texas Ethics Commission (TEC), all contracts with private business entities requiring approval by the City Council, will require the on-line completion of Form 1295 "Certificate of Interested Parties." Form 1295 is also required for any and all contract amendments, extensions or renewals. Contractors are required to complete and file electronically with the Texas Ethics Commission using the online filing application.

13. Prohibition on Contracts with Certain Companies

The City will review the website of the Comptroller of the State of Texas to determine if the respondent is on the list of companies that provide supplies or services to a foreign terrorist organization as defined in Chapter 2252 of the Texas Government Code, as amended. Any company identified on such list will be disqualified from consideration.

14. Texas Public Information Act

All information, documentation, and other materials submitted in response to this RFB are considered non-confidential and/or non-proprietary and are subject to public disclosure under the Texas Public Information Act (Texas Government Code, Chapter 552.001, et seq.) after the solicitation is completed.

The requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this RFB and the bidder agrees that any contract resulting from this solicitation can be terminated by the City if the bidder knowingly or intentionally fails to comply with a requirement of that subchapter.

This subchapter does not create a cause of action to contest a bid for or the award of a contract with the City.

The City may not accept a bid for a contract described by Subchapter J, Chapter 552 or award the contract to an entity that the City has determined has knowingly or intentionally failed to comply with Subchapter J in a previous bid or contract described by that section unless the City determines and documents that the entity has taken adequate steps to ensure future compliance with the requirements of Subchapter J.

Nothing in this subchapter prevents the City from including and enforcing more stringent requirements in a resulting contract to increase accountability or transparency.

Attachment A

CONTRACT AGREEMENT

THIS AGREEMENT is dated as of the _____ day of _____ of the year 20__ by and between the CITY OF PRAIRIE VIEW, TEXAS (Owner) and _____ (Contractor).

Owner and Contractor, in consideration of the mutual covenants set forth herein, agree as follows:

ARTICLE 1 - WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents as listed below:

- Contract Agreement, including all exhibits**
- Standard General Conditions of the Contract**
- Technical Specifications**
- Performance Bond**
- Payment Bond**
- Plans**

There are no Contract Documents other than those listed in this Article. The Contract Documents may only be amended, modified, or supplemented as provided in Article 3.3 of the General Conditions.

1.02 The Work is generally described as follows:

- Villa Capri Wastewater Pump Station;
- Contractor to furnish all labor, materials, equipment, and incidentals required to construct, install , provide start up and training for a duplex pump wastewater pump station.
- Contractor shall utilize the existing wet well and force main previously installed by the City of Prairie View. All equipment will conform to these existing facilities. Any modifications will be included in the lump sum price, if required.
- All other appurtenances necessary to complete the Project.

ARTICLE 2 - THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

The Project has been designed by Trilogy Engineering Services. The Project is anticipated to include some or all of the following items within its scope: Contractor to furnish all labor, materials, equipment, and incidentals to construct a fully functional electric powered submersible duplex pump station. The City has installed a circular wet well and a 4-inch force main which shall be used to complete the project. This project is a performance specification project. Each proposer shall provide a complete list of all components to be provided based on the equipment available as standard equipment for the manufacturer.

The engineer of record, Trilogy Engineering Services, has provided the performance requirements of the station and a general configuration layout of the pump station. Manufacture's exact configuration will be part of the proposer's submittal.

ARTICLE 3 - ENGINEER

3.01 The Project has been designed by:

Jong Seong, P.E
Trilogy Engineering Services
650 N. Sam Houston Pkwy. E, Suite 300
Houston, TX 77060
877.463.1699

(Engineer), who is to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

4.01 *Time of the Essence*

Time limits stated in the Contract Documents are of the essence of the Contract. In all aspects of the Work, including any time limits for Milestones, Substantial Completion, and Final Completion, time is of the essence of the Contract. Additionally, time limits stated in the Project Schedule are of the essence. By executing this Contract Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

4.02 *Days to Achieve Substantial Completion and Final Payment*

The City of Prairie View has established a target commencement date for construction activities no later than 10/1/2022. The Work shall be substantially complete within **One Hundred Fifty (150) Calendar Days from the notice to proceed date** and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within 30 calendar days after the Substantial Completion date.

4.03 *Potential Impact of COVID-19 Pandemic.*

- A. The Parties agree that the COVID-19 virus pandemic does not constitute an event of force majeure. The Contractor expressly recognizes the potential impact of the COVID-19 virus pandemic on completion of the Work. The Contractor understands and acknowledges that COVID-19 virus may impact the availability of labor or materials critical to the timely completion of the Work, and the Contractor shall reasonably anticipate and account for these potential disruptions related to the Project and completion of the Work. The Contractor may, at its discretion, purchase materials in advance of its incorporation into the Work to secure materials pricing, and submit a pay application for those materials on hand costs in accordance with Article 14 of the General Conditions.

ARTICLE 5 - CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follows, subject to adjustment under the Contract for all Work. The Contract Price shall be _____ Dollars (\$.00), subject to additions and deductions as provided in the Contract Documents. Contractor shall prepare a baseline Project Schedule and Schedule of Values on which the Contract Price is based.

5.02 For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item):

Unit Price Work					
Item No.	Description	Unit	Estimated	Unit Price	Extended Price
Total of all Extended Prices for Unit Price Work (subject to final adjustment based on actual quantities)					\$

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

Contractor shall submit Applications for Payment on the 15th of the month to the Engineer. Payment by Owner, following review of the Application for Payment by the Engineer, shall be made in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions. Each Application for Payment shall be based on the most recent Schedule of Values submitted by the Contractor in accordance with the Contract Documents.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor’s Applications for Payment within 30 days of the City of Prairie View’s acceptance of the payment application:

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made

and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:

- a. 95% (ninety-five percent) of Work completed;
- b. 95% (ninety-five percent) of cost of materials and equipment not incorporated in the Work.

6.03 Final Payment

Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price, including any retainage held, as recommended by Engineer as provided in said Paragraph 14.07 of the General Conditions.

ARTICLE 7 – CONTRACTOR’S REPRESENTATIONS

7.01 To induce Owner to enter into this Agreement, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has obtained and carefully studied (or assumes responsibility for doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.

E. Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

F. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

G. Contractor has correlated the information known to Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 8 - MISCELLANEOUS

8.01 *Terms*

Terms used in this Agreement will have the meanings stated in the General Conditions.

8.02 *Assignment of Contract*

No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents. Should an assignment occur, the terms of this provision survive and control any further assignment by an assignee.

8.03 *Successors and Assigns*

Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

8.04 *Severability*

Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

8.05 *Jurisdiction; Venue*

This Contract shall be subject to and governed under the laws of the State of Texas without regard to its conflict of law principles. Any and all obligations and payments are due and performable and payable in Waller County, Texas. The parties agree that exclusive and mandatory venue for purposes of any and all lawsuits, cause of action, arbitration, or any other dispute(s) shall be in a state district court in Waller County, Texas.

8.06 *Confidentiality*

Any information deemed to be confidential or proprietary by the Contractor should be clearly annotated on the pages where confidential or proprietary information is contained. The City of Prairie View cannot guarantee that it will not be required to disclose all or part of any public record under Texas Public Information Act, since information deemed to be confidential or proprietary by the Contractor may not be confidential or proprietary under Texas Law, or pursuant to a Court order. Under the Public Information Act, the City of Prairie View must disclose certain contracting information and the law presumes that most contracting information is public. Certain types of contracting information must generally be released under the Public Information Act: overall price; price and description of items or services to be delivered; delivery and service deadlines; remedies for breach of contract; identity of the parties to a contract; execution and effective dates; and information connected to a vendor or contractor's performance on the contract. Additionally, information regarding performance under the contract, including breaches of contract, contract

variances, amendments, liquidated damages, and other penalties for non-performance, must generally be released under the Public Information Act.

8.07 *Contracts with Companies Engaged in Business with Iran, Sudan or Foreign Terrorist Organizations Prohibited*

A. The Contractor represents that neither it nor any of its parent company, wholly-or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, as amended, and posted on any of the following pages of such officer's internet website:

<https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf>,
<https://comptroller.texas.gov/purchasing/docs/iran-list.pdf>, or
<https://comptroller.texas.gov/purchasing/docs/fto-list.pdf>.

B. The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal or State law and excludes the Contractor and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Contractor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

8.08 *Prohibition on Contracts with Companies Boycotting Israel*

A. The Contractor hereby verifies that it and its parent company, wholly-or majority owned subsidiaries, and other affiliates, if any, does not boycott Israel and, to the extent this Agreement is a contract for goods or services, will not boycott Israel during the term of this Agreement as described in Chapter 2271 of the Texas Government Code, as amended. **[USE IN LIEU OF THE PREVIOUS SENTENCE IF THE CONTRACTOR IS EXEMPT FROM THE ISRAEL BOYCOTT REQUIREMENT—The Contractor hereby declares that it is exempt from Chapter 2271 of the Texas Government Code, as amended, relating to the prohibition on contracts with companies boycotting Israel.]** The foregoing verification is made solely to comply with Chapter 2271.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The Contractor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

8.09 *Contracts with Companies Engaged in Business with Iran, Sudan or Foreign Terrorist Organizations Prohibited*

- A. The Contractor represents that neither it nor any of its parent company, wholly-or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, as amended, and posted on any of the following pages of such officer's internet website:

<https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf>,
<https://comptroller.texas.gov/purchasing/docs/iran-list.pdf>, or
<https://comptroller.texas.gov/purchasing/docs/fto-list.pdf>.

- B. The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal or State law and excludes the Contractor and each of its parent company, wholly-or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Contractor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

8.10 *Prohibition on Contracts with Companies in China, Iran, North Korea, or Russia*

- A. To the extent this Agreement relates to critical infrastructure in the State of Texas, the Contractor represents the following:

1. it is not owned by or the majority of stock or other ownership interest in the Contractor is not held or controlled by:
 - a. individuals who are citizens of China, Iran, North Korea, Russia, or a country designated by the Governor of Texas as a threat to critical infrastructure under Section 2274.0103 of the Texas Government Code, as amended ("designated country"); or
 - b. 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 designated country; or
2. it is not headquartered in China, Iran, North Korea, Russia, or a designated country.

- B. The foregoing representation is made solely to comply with Chapter 2274 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal or State law. As used in the foregoing verification, "critical infrastructure" means a communication infrastructure system, cybersecurity system, electric grid, hazardous waste treatment system, or water treatment facility.

8.11 *Prohibition on Contracts with Companies Boycotting Energy Companies*

A. The Contractor hereby verifies that it and its parent company, wholly-or majority owned subsidiaries, and other affiliates, if any, do not boycott energy companies and, to the extent this Agreement is a contract for goods or services, will not boycott energy companies during the term of this Agreement as described in Chapter 2274 of the Texas Government Code, as amended. **[USE IN LIEU OF THE PREVIOUS SENTENCE IF THE CONTRACTOR IS EXEMPT FROM THE ENERGY COMPANY BOYCOTT REQUIREMENT—The Contractor hereby declares that it is exempt from Chapter 2274 of the Texas Government Code, as amended, relating to the prohibition on contracts with companies boycotting certain energy companies.]**

B. The foregoing verification is made solely to comply with Section 2274.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, “boycott energy companies” has the meaning used in Section 809.001 of the Texas Government Code, as amended. The Contractor understands “affiliate” to mean an entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

8.12 *Prohibition on Contracts with Companies that Discriminate Against Firearm and Ammunition Industries*

A. The Contractor hereby verifies that it and its parent company, wholly-or majority owned subsidiaries, and other affiliates, if any, do not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and, to the extent this Agreement is a contract for goods or services, will not discriminate against a firearm entity or firearm trade association during the term of this Agreement as described in Chapter 2274 of the Texas Government Code, as amended. **[USE IN LIEU OF THE PREVIOUS SENTENCE IF THE CONTRACTOR IS EXEMPT FROM THE DISCRIMINATE AGAINST FIREARM AND AMMUNITION INDUSTRIES CONTRACT REQUIREMENT—The Contractor hereby declares that it is exempt from Chapter 2274 of the Texas Government Code, as amended, relating to the prohibition on contracts with companies that discriminate against a firearm entity or firearm trade association.]**

B. The foregoing verification is made solely to comply with Section 2274.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, “discriminate against a firearm entity or firearm trade association” has the meaning used in Section 2274.001(3) of the Texas Government Code, as amended. The Contractor understands “affiliate” to mean an entity that controls, is controlled by, or is under common control with the Contractor and exists to make a profit.

8.13 *Texas Public Information Act*

A. The Contractor recognizes that this Project is publicly owned, and the Owner is subject to the disclosure requirements of the Texas Public Information Act (the “TPIA”). As part of its obligations within the Contract Documents, the Contractor agrees, at no additional cost to the Owner, to cooperate with the Owner for any particular needs or obligations arising out of the Owner’s obligations under the TPIA. This acknowledgement and obligation are in addition to and complimentary to the Owner’s audit rights.

B. This provision applies if the Agreement has a stated expenditure of at least \$1 million in public funds for the purchase of goods or services by the Owner or results in the expenditure of at least \$1 million in public funds for the purchase of goods or services by the Owner in a fiscal year of the City of Prairie View (the Owner).

C. The Contractor must (1) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to the Owner for the duration of the Agreement; (2) promptly provide to the Owner any contracting information related to the Agreement that is in the custody or possession of the Construction Manager on request of the Owner; and (3) on completion of the Agreement, either:

- i. provide at no cost to the Owner all contracting information related to the Agreement that is in the custody or possession of the Contractor; or
- ii. preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to the Owner.

D. The requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this Agreement and the Contractor agrees that the Agreement can be terminated if the Contractor knowingly or intentionally fails to comply with a requirement of that subchapter.

ARTICLE 9 - INSURANCE

9.01 *Evidence of Contractor's Insurance*

When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured, the certificates and other evidence of insurance required to be provided by Contractor in accordance with the Insurance Rider that is Exhibit A to the General Conditions, which is attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement in duplicate. One counterpart each has been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or identified by Owner and Contractor or on their behalf.

This Agreement will be effective on _____, _____ (which is the Effective Date of the Agreement).

OWNER:

CITY OF PRAIRIE VIEW, TEXAS

By: _____

Printed Name: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

(If Owner is a corporation, attached evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of Owner-Contractor Agreement.)

CONTRACTOR:

By: _____

Printed Name: _____

Title: _____

[CORPORATE SEAL]

Attest: _____

Title: _____

Address for giving notices:

License No.: _____

(Where Applicable)

Agent for service or process:

(If Contractor is a corporation or a partnership, attach evidence or authority to sign.)

END OF DOCUMENT

**STANDARD
GENERAL CONDITIONS
OF THE
CONTRACT**

**Prepared by
CITY OF PRAIRIE VIEW, TEXAS**

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Request for Bids (“RFB”), Bidding Requirements, other documents included with the published RFB, and the Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids or Proposals which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and

which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Change Order*--A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

6. *Change Proposal* – A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both.

7. *Claim*--A demand or assertion by the Contractor duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

8. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

9. *Engineer*--The individual or entity named as such in the Agreement.

10. *Field Order*--A written order issued by Engineer or Owner which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

11. *General Requirements*--The General Requirements pertain to all sections of the Specifications.

12. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

13. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

14. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

15. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

16. *PCBs*—Polychlorinated biphenyls.

17. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

18. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

19. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

20. *Related Entity* — An officer, director, partner, employee, agent, consultant, subcontractor, subsidiary or affiliate of the referenced entity or party.

21. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

22. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

23. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

24. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.

25. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

26. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television,

water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

27. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

28. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. *Defective*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents, or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

C. *Furnish, Install, Perform, Provide*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.

D. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

A. Contractor shall deliver to Owner such bonds as Contractor may be required to furnish within ten (10) days of the date on which Contractor signs the Agreement. Contractor shall not be permitted to commence performance until the bonds have been delivered even though the Contract time may have commenced.

B. Evidence of Insurance: Before any Work at the Site may commence, Contractor shall deliver to the Owner certificates of insurance and policy endorsements pages for all insurance policies that may be required of Contractor by the Contract Documents evidencing compliance with the Owner's insurance requirement as required in Article 5 and Exhibit A, Owner's Insurance Requirements, to these General Conditions.

2.02 Copies of Documents

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence upon issuance of a Notice to Proceed by the Owner.

2.04 Commencement of Performance

A. Contractor may commence performance upon receipt of the Notice to Proceed and in accordance with any terms and dates contained therein.

2.05 Before Starting Construction

A. *Preliminary Schedules*: Within ten (10) days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to the Owner and Engineer:

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, identifying the critical path for the Work, and including any Milestones specified in the Contract Documents;
2. a preliminary Schedule of Submittals; and
3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during

performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

B. Contractor represents that Contractor's preliminary Progress Schedule has been prepared and is based upon Contractor's own knowledge, understanding, and judgment of conditions and hazards, known and anticipated, and does not rely on any representations by Owner.

2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Designation of Authorized Representatives*

A. Prior to or within three (3) days of the Notice to Proceed, the Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.08 *Initial Acceptance of Schedules*

A. At least ten (10) days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Owner as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional ten (10) days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Owner.

1. The Progress Schedule will be acceptable to Owner if it provides an orderly progression of the Work to completion within the Contract Times.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

2.09 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract Documents, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or accessible digital format, either directly, or through access to a secure Project website.
- B. Contractor and all of Contractor's personnel shall maintain and save said electronic data in a format producible to Owner, if required for an audit as allowed by section 17.10 or otherwise.

Said preservation requirement shall apply to all electronic transmittals allowed by this section 2.09, including all text and electronic mail messages.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

3.02 Reference Standards

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover, or has actual knowledge of, and

shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.05.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof. Should Contractors perform the Work after discovery of such a conflict without reporting the conflict or before receipt of a clarification or interpretation by Engineer, Contractor will be solely liable for any correction or other measures that may be required to overcome the conflict or bring the Work into compliance with the Contract Documents.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

- a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder. Owner shall have sole authority to accept the Work. Action of the Engineer shall not bind Owner to acceptance of the Work, or any part thereof, nor shall any act of the Engineer be relied upon by Contractor as an indicator of acceptance by the Owner.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 10.

D. If the Work required by a Drawing or Specification identifies or requires a specific piece of equipment, such Drawing or Specification shall indicate the manufacturer's part number or reference data. If specific equipment is required, the Drawings or Specifications shall indicate the design dimensions and the minimum and maximum allowable operating tolerances for any such equipment, where applicable.

3.05 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive. No verbal or written communication other than a Change Order or Work Change Directive shall constitute a change to the Contract Documents.

B. The requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;
2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or
3. Engineer's written interpretation or clarification.

C. The prohibition of this Paragraph will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within sixty (60) days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the sixty (60)-day acceptance period will be corrected by the transferring party.

1. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Times as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Owner shall provide any easements for ingress or egress necessary for access to the Site.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment for which the Site and any Owner-provided easements do not provide.

4.02 *Subsurface and Physical Conditions*

A. Contractor accepts the responsibility to satisfy itself as to the soil conditions and nature and type of geological formations in and through which this Project will be constructed. Such information as may be obtained from the test borings and accompanying notations shown on the plans is merely for the guidance of the Contractor and is not to be construed in any manner as a guarantee by the Owner that such conditions of sub-surface strata are infallible.

B. Contractor waives any and all rights to make a claim against Owner relating to representations related to geotechnical data provided in the contract documents, plans and specifications. The locations of the test holes, if applicable, are shown in the Geotechnical Report. Logs of these test holes are included in the Geotechnical Report. Test hole information represents subsurface characteristics to the extent indicated and only for the point location of the test hole. Contractor shall make its own interpretation of the character and condition of the materials, which will be encountered. Contractor may, at its own expense, make additional surveys and investigations as it may deem necessary to determine conditions, which will affect performance of the Work.

C. *Reports and Drawings*: The Supplementary or Special Conditions may identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

D. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the “technical data” provided and as contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary or Special Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

Contractor waives and expressly acknowledges that it does not possess and may not maintain any claims against Owner due to the inclusion or omission from the bid documents or the contract documents any data concerning geotechnical, hydrological or other similar data and studies that may be known to the Owner or its Engineer, regardless of whether such data was considered in the design.

4.03 Differing Subsurface or Physical Conditions

A. Notice: If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. Engineer’s Review: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Times will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's time required for performance of the Work; subject, however, such condition must meet any one or more of the categories described in Paragraph 4.03.A.
2. Contractor shall not be entitled to any adjustment in the Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Times, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any increase in the Contract Sum or any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with the Project as a result of differing subsurface or physical conditions.

4.04 *Underground Facilities*

A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data,
 - b. locating all Underground Facilities, regardless of whether shown or indicated in the Contract Documents,
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the

Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the location of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Times, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Times, Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 Reference Points

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

B. Contractor shall note the location of all reference points and controls on a set of red-lined drawings or exhibits to be maintained at all time on the jobsite or the location of Contractor's project management personnel.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer in writing within twenty-four (24) hours of the discovery of such condition. Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs and deduct all costs incurred from the contract balance or if no contract balance, may file a claim for costs.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Times, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, Owner may issue a Work Directive or notify Contractor of its decision and Contractor may make a Claim as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, the Contractor may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER AND ITS OFFICIALS, OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, CONSULTANTS, AND SUBCONTRACTORS OF EACH AND ANY OF THEM FROM AND AGAINST ALL CLAIMS, COSTS, LOSSES, AND DAMAGES (INCLUDING BUT NOT LIMITED TO ALL FEES AND CHARGES OF ENGINEERS, ARCHITECTS, ATTORNEYS, AND OTHER PROFESSIONALS AND ALL COURT OR ARBITRATION OR OTHER DISPUTE RESOLUTION COSTS) ARISING OUT OF OR RELATING TO A HAZARDOUS

ENVIRONMENTAL CONDITION CREATED BY CONTRACTOR OR BY ANYONE FOR WHOM CONTRACTOR IS RESPONSIBLE.

H. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

4.07. Hazardous Materials and Waste

A. Where hazardous materials are brought to or otherwise encountered at the site, Contractors shall take necessary precautions and exercise a standard of care sufficient to properly address the hazardous material or waste as may be required. Contractor shall properly containerize, label, and transport such hazardous materials and waste as may be required by Owner or any other governmental or regulatory body having jurisdiction or control over the handling, storage or disposal of such hazardous materials or waste. Upon request by Owner, Contractor shall furnish copies of all manifests and/or bills of lading identifying the generation and ultimate disposal of all materials that may be the subject of referenced regulations.

ARTICLE 5 - BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall be in accordance with Texas Government Code Chapters 2253 and 2269.

B. All bonds shall be in the form prescribed by the Owner in the Contract Documents. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements above, Contractor shall promptly notify Owner and Engineer and shall, within twenty (20) days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements above.

D. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 15.

5.02 Licensed Sureties and Insurers

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Insurance Rider that is Exhibit A to these General Conditions.

5.03 Certificates of Insurance

A. Contractor shall deliver to Owner, with copies to each additional insured identified in Exhibit A to these General Conditions, certificates of insurance, policy endorsements page (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

5.04 Waiver of Rights

A. Owner and Contractor intend that all policies purchased will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Insurance Rider to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against all other individuals or entities identified in the Insurance Rider to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 Supervision and Superintendence

A. The Contractor shall prosecute the Work in a good and workmanlike manner, continuously and diligently in accordance with generally accepted standards for projects similar to the Project, using qualified, careful, and efficient workers, in conformity with the provisions of the Agreement and in strict compliance with the Contract Documents and with Laws and Regulations.

B. 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 perform the Work in strict accordance with the Contract Documents.

C. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written consent of Owner. Such consent shall

not be unreasonably withheld. Contractor shall not employ any superintendent on the Project, whether initially or as a replacement, against whom Owner may have reasonable objection. The superintendent shall fluently speak the English language. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 Labor; Working Hours

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer. Contractor shall notify the Engineer and Owner in writing of such request no less than 3 days prior to the requested work date for performance of Work on Saturday, Sunday, or any legal holiday.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work, regardless whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.08 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for Owner's acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in

changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 Substitutes and “Or-Equals”

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. “Or-Equal” Items: If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item. For the purposes of this sub-Paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

- 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
- 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,
- 3) it has a proven record of performance and availability of responsive service; and
- 4) it is not objectionable to Owner.

b. Contractor certifies that, if approved and incorporated into the Work:

- 1) there will be no increase in cost to the Owner or increase in Contract Times, and
- 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer’s sole discretion an item of material or equipment proposed by Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

- 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
- 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
 - b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 - c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
 - a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services;
- 4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination. Use of an unapproved "or-equal" item will render such Work defective and will be subject to Article 13 provisions.

D. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer may record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

G. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 6.05.E, by timely submittal of a Change Proposal.

6.06 Concerning Subcontractors, Suppliers, and Others

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection.

B. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER AND ENGINEER, AND THE OFFICIALS, OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, CONSULTANTS AND SUBCONTRACTORS OF EACH AND ANY OF THEM FROM AND AGAINST ALL CLAIMS, COSTS, LOSSES, AND DAMAGES (INCLUDING BUT NOT LIMITED TO ALL FEES AND CHARGES OF ENGINEERS, ARCHITECTS, ATTORNEYS, AND OTHER PROFESSIONALS AND ALL COURT OR ARBITRATION OR OTHER DISPUTE RESOLUTION COSTS) ARISING OUT OF OR RELATING TO ANY INFRINGEMENT OF PATENT RIGHTS OR COPYRIGHTS INCIDENT TO THE USE IN THE PERFORMANCE OF THE WORK OR RESULTING FROM THE INCORPORATION IN THE WORK OF ANY INVENTION, DESIGN, PROCESS, PRODUCT, OR DEVICE NOT SPECIFIED IN THE CONTRACT DOCUMENTS.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner may assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Contractor shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not

limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, with the specific exception of compliance with all applicable building codes, Contractor has no responsibility or liability for determining whether the Work as described in the Contract Documents complies with applicable Laws or Regulations.

6.10 Taxes

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

B. The Owner enjoys limited tax-exempt status as a municipality of the State of Texas. To enjoy the cost-savings benefits of its tax-exempt status, the Owner will provide a Tax Exemption Certificate to the Contractor for use on the Project. The Contractor shall use that certificate to exempt any purchases made for the Work from taxes. All savings for the tax-exempt status will be passed on to the Owner by the Contractor. The Contractor agrees to bind all Subcontractors of any tier to the obligation to present and use the Tax Exemption Certificate and pass all savings to the Owner.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER, AND ITS OFFICIALS, OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, CONSULTANTS AND SUBCONTRACTORS OF EACH AND ANY OF THEM FROM AND AGAINST ALL CLAIMS, COSTS, LOSSES, AND DAMAGES (INCLUDING BUT NOT LIMITED TO ALL FEES AND CHARGES OF ENGINEERS, ARCHITECTS, ATTORNEYS, AND OTHER PROFESSIONALS AND ALL COURT OR ARBITRATION OR OTHER DISPUTE RESOLUTION COSTS) ARISING OUT OF OR RELATING TO ANY CLAIM OR ACTION, LEGAL OR EQUITABLE, BROUGHT BY ANY SUCH OWNER OR OCCUPANT AGAINST OWNER, OR ANY OTHER PARTY INDEMNIFIED HEREUNDER TO THE EXTENT CAUSED BY OR BASED UPON CONTRACTOR'S PERFORMANCE OF THE WORK.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Owner. Delivery of a complete set of record documents to Owner is a condition precedent to Final Completion.

6.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall comply with applicable Laws and Regulations regarding safety, and shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

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

B. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage

or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

E. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

6.14 Safety Representative

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 Hazard Communication Programs

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.
- B. Contractor shall maintain Material Safety Data Sheets (MSDS), where applicable, for any chemical products. The MSDS(s) shall be made available to Owner or Engineer upon request.

6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.08). Each submittal will be identified as Engineer may require.

1. Shop Drawings

- a. Submit number of copies specified in the General Requirements.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
 2. Samples: Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
 - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
 - c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
 - d. each Shop Drawing or Sample are coordinated with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or

incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample.

3. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order. Should Contractor seek an adjustment to the Contract Time due to the failure of Engineer to timely review submittals in accordance with the terms contained in the Contract Documents, Contractor must provide information required by and in accordance with articles 10 and 12 of these general conditions. Contractor expressly waives and acknowledges that it shall not be entitled to an adjustment of the Contract Sum, delay damages, or any other type or category of monetary damages due to the Engineer's review.

4. Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall not result in such item becoming a Contract Document.

5. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 6.17.D.2.

E. Resubmittal Procedures

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

A. The Contractor warrants to the Owner that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will strictly conform to the requirements of the Contract Documents and will be performed in a good and workmanlike manner, and will be free from defects. Work, materials, or equipment not conforming to these requirements may be considered defective.

B. Contractor's warranty and guarantee hereunder excludes remedy for defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
2. normal wear and tear under normal usage.

C. If required by the Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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

1. observations by Engineer;
2. recommendation by Engineer or payment by Owner of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

F. The Contractor warrants and guarantees for one (1) year from Final Completion, or for a longer period if expressly stated in the Contract Documents, the Work. This includes a Warranty and Guarantee against any and all defects. The Contractor must correct any and all defects in material and/or workmanship which may appear during the Warranty and Guarantee period, or any defects that occur within one (1) year of Final Completion even if discovered more than one (1) year after Final Completion, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the Owner, within a reasonable period of time, and to the Owner's satisfaction.

6.20 Indemnification

A. TO THE FULLEST EXTENT PERMITTED BY LAWS AND REGULATIONS, CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS OWNER AND ITS OFFICIALS, OFFICERS, DIRECTORS, PARTNERS, EMPLOYEES, AGENTS, AND CONSULTANTS OF EACH AND ANY OF THEM FROM AND AGAINST ALL CLAIMS, COSTS, EXPENSES, 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 REGARDLESS OF WHETHER SUCH FEES, COSTS OR EXPENSES ARE INCURRED PRIOR TO OR DURING THE PENDENCY OF LITIGATION) ARISING OUT OF OR RELATING TO THE PERFORMANCE OF THE WORK. SUCH INDEMNITY OBLIGATIONS SHALL INCLUDE, BUT ARE NOT LIMITED TO A CLAIM, COST, EXPENSE, LOSS, OR DAMAGE THAT IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE, OR DEATH, OR TO INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY, INCLUDING THE LOSS OF USE RESULTING THEREFROM. ALL INDEMNITY OBLIGATIONS OF CONTRACTOR SHALL BE LIMITED TO THE EXTENT CAUSED BY ANY NEGLIGENT ACT OR OMISSION OF CONTRACTOR, ANY SUBCONTRACTOR, ANY SUPPLIER, OR ANY INDIVIDUAL OR ENTITY DIRECTLY OR INDIRECTLY EMPLOYED BY, OR UNDER THE SUPERVISION OF, ANY OF THEM TO PERFORM ANY OF THE WORK OR ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE.

6.21 Delegation of Professional Design Services

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and

design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for, nor warrant, the adequacy of the design, performance criteria, or design criteria required by the Contract Documents, Plans, and Specifications, except for such portions of the design as may have been delegated to Contractor pursuant to this section 6.21.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 Related Work at Site

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and
2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 Coordination

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and
3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. For all Project and performance of Work matters, Owner will issue all communications to Contractor through Engineer. However, Owner may, at its discretion, issue communications related to the Project directly to Contractor. In all such direct communications, Owner will endeavor to copy Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to

Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by Engineer in preparing the Contract Documents.

8.06 Insurance

A. Owner's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 Change Orders

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 Inspections, Tests, and Approvals

A. Owner's responsibility in respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 Limitations on Owner's Responsibilities

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 Evidence of Financial Arrangements

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Owner's Representative

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer. Engineer shall not have the authority to bind the Owner as that

authority lies with the Owner's representative designated in Paragraph 2.07 or the city council of the City of Prairie View, but Engineer may communicate on behalf of Owner in all Project matters. Where in these Contract Documents actions are designated to the Engineer for performance, to the extent said actions do not involve technical matters, the Owner may act for itself and shall not be bound to an action by Engineer as a condition precedent.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary or Special Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary or Special Conditions.

9.04 *Authorized Variations in Work*

A. Owner and Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or

extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work that Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Contractor, subject to the provisions of Paragraph 10.05. Engineer will make a recommendation to Owner for payment of such Unit Price Work, but Owner shall make the final determination thereof.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within thirty (30) days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph, Engineer will not show partiality to Owner or Contractor.

9.09 Limitations on Engineer's Authority and Responsibilities

A. Engineer's authority, responsibility, or actions as Owner's representative shall not give rise to any liability to Contractor. Contractor expressly waives any claims it has against Engineer for the performance of its responsibilities as Owner's representative.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto.

C. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

D. The limitations upon authority and responsibility set forth in this Paragraph shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

A. 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 by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.05, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, or (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09;
2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Contractor Change Requests*

A. Whenever it determines the Work depicted in or required by the Contract Documents should be modified, altered or changed to address unforeseen conflicts, changed conditions, or if, in the Contractor's opinion and evaluation, the change would benefit and improve the Project or reduce costs to the Owner, the Contractor may submit a Change Order request to the Engineer in any format the Contractor deems appropriate. The Engineer will consider such change and issue a recommendation to the Owner. The Contractor shall not delay or prevent continuation of other Work during the pendency of a Change Order request submitted by Contractor. Contractor shall not be entitled to any adjustment of the Contract Time or Contract Price due the submission of a Change Order request.

10.05 *Claims*

Claims Process: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Paragraph:

Appeals by Contractor of Engineer's decisions regarding Change Proposals;

Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

The parties agree the Owner is not obliged to submit a Claim as provided in this Article 10.05 to assert its rights under the Contract Documents.

Submittal of Claim: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly, but in no event later than thirty (30) days, after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within thirty (30) days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim.

Review and Resolution: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

Mediation:

At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

If Owner and Contractor agree to mediation, then after sixty (60) days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process in writing, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined in writing by the mediator.

Owner and Contractor shall each pay one-half of the mediator's fees and costs.

Denial of Claim: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If, after receipt of the written notice of denial, the receiving party does not (1) take action on the Claim within ninety (90) days or (2) specifically reserves rights to pursue the claim, subject to controlling Laws and Regulations, then the party asserting the Claim shall be deemed to have expressly waived such Claim.

Final and Binding Results: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; then the agreement shall be memorialized in a writing signed by both parties and results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 11 - COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an

adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto.
2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, and surveyors) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations, subject to Paragraph 6.10.
 - e. The cost of utilities, fuel, and sanitary facilities at the Site.
 - f. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's employees, agents and other personnel not included in Paragraph 11.01.A.1 whether at the Site or in Contractor's

principal or branch office for general administration of the Work, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Owner and Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

B. Prior to final payment, to the extent prior Change Orders have not been executed allocated contingency allowances, an appropriate Change Order will be issued to reflect actual amounts due Contractor on account of Work covered by allowances, and the balance of any unused contingency shall revert to Owner unless allocated differently elsewhere in the Contract Documents.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determination of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. 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.

D. Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the Bid price of a particular item of Unit Price Work amounts to five (5) percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by Contractor differs by more than twenty-five (25) percent from the estimated quantity of such items indicated in the Agreement;
2. there is no corresponding adjustment with respect any other item of Work; and
3. Contractor believes that Contractor has incurred additional expense and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Claim by the Contractor for an adjustment in the Contract Price shall be based on written notice submitted to the Engineer and the Owner in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

- b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
- c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
- d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times and Contractor's ability to demonstrate effect on Contractor's then established critical path.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, pandemic, unusually severe and abnormal weather conditions such as tropical storms, hurricanes, or tornados, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times and Contractor's ability to demonstrate effect on Contractor's then established critical path. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this sub-Paragraph. The occurrence of flooding or other effects of storms or severe weather such as thunderstorms or ordinarily experienced rain events shall not trigger an adjustment of the Contract Time pursuant to this section. Rain events and other anticipated weather that may result in delays to Contractor's performance are addressed in the following paragraphs D and E.

D. The procedure for the determination of time extensions for unusually severe weather. In order for the Owner to award a time extension under this clause, the following conditions must be satisfied:

1. The weather experienced at the Project site during the Contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the Project location during any given month; and
2. The unusually severe weather must actually cause a delay to the completion of the Project.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the Project location and will constitute the base line for monthly weather time evaluations. The Contractor's activity durations provided in the progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

**MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON FIVE (5) DAY WORK WEEK**

JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
(5)	(5)	(5)	(4)	(5)	(6)	(6)	(5)	(5)	(5)	(6)	(5)

E. For the duration of the Contract, the Contractor shall maintain in its daily reports an accurate and contemporaneous record of the occurrence of adverse weather and resultant impact to normally scheduled Work. Delay from adverse weather shall not qualify as an adverse weather delay unless Work on the overall Project's critical activities is prevented for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather days shall be calculated monthly. If the number of actual adverse weather delay days in a month exceeds the number of days for that month as referenced above, the Owner upon notification by the Contractor, will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and a Modification shall be issued in accordance with the Contract.

F. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with the Project or any other project or anticipated project.

G. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

H. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

I. Contractor must submit any Change Proposal seeking an adjustment in Contract Times under this Paragraph 12.03 within thirty (30) days of the commencement of the delaying, disrupting, or interfering event.

J. Contractor expressly waives any right to an adjustment in Contract Price for any event of delay. Contractor's sole remedy for any delay shall be limited to an adjustment in Contract Time.

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

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and
3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely written notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such written notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered at Contractor's expense for Engineer's observation and thereafter replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price

through issuance of a deductive Change Order. If the parties are unable to agree as to the amount thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, or, if the Work has been rejected by Engineer or Owner, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within a one year period after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or
2. correct such defective Work; or
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

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

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph are in addition to any other obligation or warranty. The provisions of this Paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work and the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the Contractor does not agree as to the amount of the deductive Change Order, Contractor may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work, Deficient Performance or Contractor Default*

A. If Contractor fails within a reasonable time after written notice from Engineer or Owner to correct defective Work or to remove and replace rejected Work as required by Owner in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven (7) days written notice to Contractor to cure such default, make demand on Contractor's surety to perform as required in the performance bond issued for

the Work, utilize its own forces, or hire a supplemental or replacement contractor to correct or remedy any such deficiency. In electing to exercise any remedy allowed under this Paragraph, Owner is not required to terminate Contractor's rights of continued performance for the entirety of the Work but may eliminate such scope of work from Contractor as may be necessary to exercise its rights under this section.

B. In exercising the rights and remedies under this Paragraph, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and all or part of the tools, appliances, equipment, machinery and materials stored or maintained at the Site or for which Owner has paid Contractor but which are stored elsewhere, and suspend Contractor's services related thereto. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the Contractor does not agree as to the amount of the adjustment, Contractor may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Time because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.08 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Owner and Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. If a date is established in the Agreement for each progress payment then at least 20 days before the date established for each progress payment, or if no date is specific then not more often than once a month, Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed

as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. Engineer will, within ten (10) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents;
and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due

- 1. Thirty (30) days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work; or
 - b. there are other items entitling Owner to a set-off against the amount recommended; or
 - c. Owner has actual knowledge of the occurrence of any of the events enumerated in sub-Paragraphs 14.02.B.4.a through 14.02.B.4.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

14.03 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. At that inspection, Owner and Engineer will review, supplement, and edit the initial punch list prepared by Contractor or prepare

an additional punch list if Contractor has not yet provided a punch list. If Owner or Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Owner and Engineer consider the Work substantially complete; Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven (7) days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within fourteen (14) days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If Owner does not object to the provisions of the certificate, Engineer will within said fourteen (14) days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work that Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work, and follow the procedures of Paragraphs 14.04.A through E for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Owner or Engineer do not consider that part of the Work to be substantially complete, Engineer will notify Contractor in writing giving the reasons therefor. If Owner or Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work.
4. No use or occupancy or separate operation of part of the Work will relieve Contractor of its insurance obligations under these Contract Documents.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten (10) days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

1. Thirty (30) days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than ninety (90) consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.08 as adjusted from time to time pursuant to Paragraph 6.04);
 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. Contractor's disregard of the authority of Owner or Engineer; or
 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven (7) days' written notice of its intent to terminate the services of Contractor:
1. declare Contractor to be in default and give Contractor (and any surety) notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work and all materials, equipment, and tools maintained or stored at the Site, 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 complete the Work as Owner may deem expedient. Owner shall have the right with respect to Contractor and Contractor's surety to demand performance of said surety within ten (10) days following termination. Further, Owner shall have the right to determine and/or approve and replacement contractor desired by Surety to correct and complete the Work.
- D. If Owner proceeds as provided in Paragraph 15.02.C, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed nor shall Owner be required to publicly bid any completion work should Owner exercise its right to complete the Work on its own as completion work shall be deemed by the Owner, Contractor, Contractor's surety, and Engineer to qualify for an exemption to public bidding as found in the Texas Government Code chapter 252.

E. Contractor's services will not be terminated pursuant to Paragraph 15.02.B if Contractor begins within seven (7) days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

15.03 *Owner May Terminate for Convenience*

A. Upon seven (7) days' written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for:

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination;
2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work;
3. demobilization expenses; and
4. overhead and profit on unperformed work.

B. Contractor shall not be paid for any economic loss arising out of or resulting from such termination, except for those costs expressly identified above.

15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than ninety (90) consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within thirty (30) days after it is submitted, or (iii) Owner fails for sixty (60) days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven (7) days' written notice to Owner and Engineer, and provided Owner or Engineer do not begin within that time to remedy such suspension or failure, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

C. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within thirty (30) days after it is submitted, or Owner has failed for sixty (60) days to pay Contractor any sum finally determined to be due, Contractor may, seven (7) days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made; and
3. Reserved claims of Owner or Contractor under these Contract Documents, including Article 10.

B Final Resolution of Disputes.

1. For any disputes subject to this article, Owner and Contractor shall endeavor to resolve their Claims by mediation. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction.
2. For any claim not resolved by mediation, the parties agree to submit such claims to the jurisdiction of the District Court of Waller County, Texas, which is the exclusive venue for all claims arising out of this agreement, for final dispute resolution.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended,
2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice, or
3. delivered by electronic means with a corresponding confirmation of delivery or read receipt to the individual or to a member of the firm or to an officer of the corporation for whom it is intended.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state of Texas without regarding to its conflict of laws principles.

17.06 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

17.07 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officials, officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

B. The Contractor and Owner waive claims against each other for the following enumerated consequential damages arising out of or relating to this Contract. This mutual waiver includes and is expressly limited to the following:

1. damages incurred by the Owner for lost revenue, profit, financing costs, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

2. damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, bonding capacity, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

17.08 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

17.09 *Prevailing Wage*

A. Contractor shall comply with chapter 2258 of the Texas Government Code governing prevailing wage. The Contractor shall provide and pay for labor in accordance with the prevailing wage in the locality and shall not pay less than the prevailing wage. The Owner has not independently performed a wage determination in accordance with controlling state and federal statutes. Accordingly, the Contractor must utilize the wage determinations and rates published by the U.S. Department of Labor pursuant to the Davis-Bacon Act.

B. Certified payrolls demonstrating compliance with the prevailing wage requirements shall be maintained by the Contractor and all Subcontractors performing the Work. The Contractor is required to submit to the Owner a copy of all certified payrolls for any pay period with each Pay Application. Failure to provide certified payrolls may be grounds for withholding of funds and default.

17.10 *Right to Audit:*

A. Whenever the Owner enters into any type of contractual arrangement with the Contractor, then the Contractor's "records" shall upon reasonable notice be open to inspection and subject to audit and/or reproduction during normal business working hours. The Owner's representative, or an outside representative engaged by the Owner, may perform such audits. The Contractor shall maintain all records relating to this Agreement for four (4) years from the date of final payment under this Agreement.

B. The Owner shall have the exclusive right to examine the records of the Contractor. The term "records" as referred to herein shall include any and all information, materials and data of every kind and character, including without limitation books, papers, documents, contracts, schedules, commitments, arrangements, notes, daily diaries, reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information and matters that may, in the Owner's judgment, have any bearing on or pertain to any matters, rights, duties or obligations under or covered by any contract document. Such records shall include (hard copy, as well as computer-readable data if it can be made available), written policies and procedures, time sheets, payroll registers, cancelled checks, personnel file data, correspondence (including letters and emails), general ledger entries, and any other record in the Contractor's possession which may have a bearing on matters of interest to the Owner in connection with the Contractor's dealings with the Owner (all of the foregoing are hereinafter referred to as "records"). In addition, the Contractor shall permit interviews of employees as well as agents, representatives, vendors, subcontractors and other third parties paid by the Contractor to the extent necessary to adequately permit evaluation and verification of the following:

The Contractor's compliance with contract requirements;

The Contractor's compliance with the Owner's business ethics policies; and

If necessary, the extent of the Work performed by the Contractor at the time of contract termination.

C. The Contractor shall require all payees (examples of payees include subcontractors, insurance agents, material suppliers, etc.) to comply with the provisions of this Article 17.10 by securing the requirements hereof in a written agreement between the Contractor and payee. Such requirements include a flow-down right of audit provision in contracts with payees that also apply to subcontractors and sub-subcontractors, material suppliers, etc. The Contractor shall cooperate fully and shall require Related Parties and all of the Contractor's subcontractors to cooperate fully in furnishing or in making available to the Owner from time to time whenever requested, in an expeditious manner, any and all such information, materials, and data.

D. The Owner's authorized representative or designee shall have reasonable access to the Contractor's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with this Article 17.10.

E. If an audit inspection or examination in accordance with this Article 17.10 discloses overpricing or overcharges of any nature by the Contractor to the Owner in excess of one-half of one percent (.5%) of the total contract billings, then the reasonable actual cost of the Owner's audit shall be reimbursed to the Owner by the Contractor. Any adjustments and/or payments, which must be made as a result of any such audit or inspection of the Contractor's invoices and/or records, shall be made within a reasonable amount of time (not to exceed ninety (90) days) from presentation of the Owner's findings to the Contractor.

17.11 *Trust Funds*

A. This Project is subject to the Texas Trust Fund Statute, chapter 162 of the Texas Property Code, and the Parties acknowledge that the payment obligations contained herein for the Contractor to receive funds from the Owner and then use those funds to pay such Subcontractors, Suppliers, Vendors, Consultants, and the like, are subject to the Trust Fund Statute and the Owner's audit rights outlined in this article 17.

17.12 *Severability*

A. If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

17.13 *Amendments*

A. The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

17.14*Assignment*

A. Contractor shall not, without the written consent of the Owner assign, transfer or sublet any portion or part of the Work or the obligations required by the Contract Documents, other than to an affiliate. An assignment to an affiliate shall not relieve the assignor of its obligations under this Agreement.

17.15*Confidential Information*

A. Confidential Information is defined as information which is determined by the transmitting party to be of a confidential or proprietary nature and: (a) the transmitting party identifies as either confidential or proprietary; (b) the transmitting party takes steps to maintain the confidential or proprietary nature of the information; and (c) the document is not otherwise available in or considered to be in the public domain. The receiving party agrees to maintain the confidentiality of the Confidential Information and agrees to use the Confidential Information solely in connection with the Project.

B. A party receiving Confidential Information may disclose the Confidential Information as required by law or court order, including a subpoena or other form of compulsory legal process issued by a court or governmental entity. A party receiving Confidential Information may also disclose the Confidential Information to its employees, consultants or contractors in order to perform services or work solely and exclusively for the Project, provided those employees, consultants and contractors are subject to the restrictions on the disclosure and use of Confidential Information as set forth in this Contract.

17.16*Texas Public Information Act*

A. The Contractor recognizes that this Project is publicly owned, and the Owner is subject to the disclosure requirements of the Texas Public Information Act (the "PIA"). As part of its obligations within the Contract Documents, the Contractor agrees, at no additional cost to the Owner, to cooperate with the Owner for any particular needs or obligations arising out of the Owner's obligations under the TPIA. This acknowledgement and obligation are in addition to and complimentary to the Owner's audit rights in section 17.10.

B. This provision applies if the Agreement has a stated expenditure of at least \$1 million in public funds for the purchase of goods or services by the Owner or results in the expenditure of at least \$1 million in public funds for the purchase of goods or services by the Owner in its fiscal year.

C. The Contractor must (1) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to the Owner for the duration of the Agreement; (2) promptly provide to the Owner any contracting information related to the Agreement that is in the custody or possession of the Contractor on request of the Owner; and (3) on completion of the Agreement, either:

1. provide at no cost to the Owner all contracting information related to the Agreement that is in the custody or possession of the Contractor; or
2. preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to the Owner.

D. The requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this Agreement and the Contractor agrees that the Agreement can be terminated if the Contractor knowingly or intentionally fails to comply with a requirement of that subchapter.

17.17 *Conflicts*

A. Notwithstanding anything herein to the contrary, if the Technical Specifications conflict with the Standard General Conditions, the Standard General Conditions control.

Exhibit A to Contract Agreement
Owner's Insurance Requirements of Contractor

1. Specific Insurance Requirements

The following insurance shall be maintained in effect with limits not less than those set forth below at all times during the term of this Agreement and thereafter as required:

Insurance	Coverage/Limits	Other Requirements
Commercial General Liability (Occurrence Basis)	Amounts of coverage shall be no less than: <ul style="list-style-type: none"> ▪ \$1,000,000 Per Occurrence ▪ \$2,000,000 General Aggregate ▪ \$2,000,000 Products/Completed Operations Aggregate ▪ \$1,000,000 Personal And Advertising Injury ▪ Designated Construction Project(s) General Aggregate Limit 	<ul style="list-style-type: none"> ▪ Current ISO edition of CG 00 01 ▪ Additional insured status shall be provided in favor of Owner Parties on a combination of ISO forms CG 20 10 04 13 and CG 20 37 04 13. ▪ This coverage shall be endorsed to provide primary and non-contributing liability coverage. It is the intent of the parties to this Agreement that all insurance coverage required herein shall be primary to and will not seek contribution from any other insurance held by Owner Parties, with Owner Parties' insurance being excess, secondary and non-contributing. ▪ Stop Gap coverage shall be provided if any work is to be performed in a monopolistic workers' compensation state. ▪ The following exclusions/limitations (or their equivalent(s), are prohibited: <ul style="list-style-type: none"> ○ Contractual Liability Limitation CG 21 39 ○ Amendment of Insured Contract Definition CG 24 26 ○ Limitation of Coverage to Designated Premises or Project, CG 21 44 ○ Exclusion-Damage to Work Performed by Subcontractors On Your Behalf, CG 22 94 or CG 22 95 ○ Exclusion-Explosion, Collapse and Underground Property Damage Hazard, CG 21 42 or CG 21 43 ○ Any Classification limitation ○ Any Construction Defect Completed Operations exclusion ○ Any endorsement modifying the Employer's Liability exclusion or deleting the exception to it ○ Any endorsement modifying or deleting Explosion, Collapse or Underground coverage

		<ul style="list-style-type: none"> ○ Any Habitational or Residential exclusion applicable to the Work ○ Any “Insured vs. Insured” exclusion except Named Insured vs. Named Insured ○ Any Punitive, Exemplary or Multiplied Damages exclusion ○ Any Subsidence exclusion
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Business Auto Liability	Amount of coverage shall be no less than: <ul style="list-style-type: none"> ▪ \$1,000,000 Per Accident 	<ul style="list-style-type: none"> ▪ Current ISO edition of CA 00 01 ▪ Arising out of any auto (Symbol 1), including owned, hired and non-owned
Workers’ Compensation and Employer’s Liability	Amounts of coverage shall be no less than: <ul style="list-style-type: none"> ▪ Statutory Limits ▪ \$1,000,000 Each Accident and Disease ▪ Alternate Employer endorsement ▪ USL&H must be provided where such exposure exists. 	<ul style="list-style-type: none"> ▪ The State in which work is to be performed must listed under Item 3.A. on the Information Page ▪ Such insurance shall cover liability arising out of the Contractor’s employment of workers and anyone for whom the Contractor may be liable for workers’ compensation claims. Workers’ compensation insurance is required, and no “alternative” forms of insurance shall be permitted. ▪ Where a Professional Employer Organization (PEO) or “leased employees” are utilized, Contractor shall require its leasing company to provide Workers’ Compensation insurance for said workers and such policy shall be endorsed to provide an Alternate Employer endorsement in favor of Contractor and Owner. Where Contractor uses leased employees with Workers’ Compensation insurance provided by a PEO or employee leasing company, Contractor is strictly prohibited from subletting any of its work without the express written agreement of Owner.
Excess Liability (Occurrence Basis)	Amounts of coverage shall be no less than: <ul style="list-style-type: none"> ▪ \$5,000,000 Each Occurrence ▪ \$5,000,000 Annual Aggregate 	<ul style="list-style-type: none"> ▪ Such insurance shall be excess over and be no less broad than all coverages described above. ▪ Drop-down coverage shall be provided for reduction and/or exhaustion of underlying aggregate limits and shall include a duty to defend any insured.
Professional Liability	Amounts of coverage shall be no less than: <ul style="list-style-type: none"> ▪ \$1,000,000 Each Occurrence ▪ \$2,000,000 Annual Aggregate 	<ul style="list-style-type: none"> ▪ Such insurance shall cover all services rendered by the Contractor and its subcontractors under the Agreement.

	<ul style="list-style-type: none"> ▪ If a combined Contractor’s Pollution Liability and Professional Liability policy is utilized, the limits shall be \$3,000,000 Each Loss and Aggregate. ▪ Such insurance shall cover all services rendered by the Contractor and its consultants under the Agreement, including but not limited to design or design/build services. ▪ Policies written on a Claims-Made basis shall be maintained for at least two years beyond termination of the Agreement. 	<ul style="list-style-type: none"> ▪ This insurance is not permitted to include any type of exclusion or limitation of coverage applicable to claims arising from: <ul style="list-style-type: none"> ○ bodily injury or property damage where coverage is provided in behalf of design professionals or design/build contractors ○ habitational or residential operations ○ mold and/or microbial matter and/or fungus and/or biological substance ○ punitive, exemplary or multiplied damages. ▪ Any retroactive date must be effective prior to beginning of services for the Owner. ▪ Policies written on a Claims-Made basis shall have an extended reporting period of at least two years beyond termination of the Agreement. Vendor shall trigger the extended reporting period if identical coverage is not otherwise maintained with the expiring retroactive date.
Contractors Pollution Liability	<p>Amounts of coverage shall be no less than:</p> <ul style="list-style-type: none"> ▪ \$1,000,000 Each Loss ▪ \$2,000,000 Annual Aggregate ▪ If a combined Contractor’s Pollution Liability and Professional Liability policy is utilized, the limits shall be \$3,000,000 Each Loss and Aggregate. ▪ The policy must provide coverage for: <ul style="list-style-type: none"> ○ the full scope of the named insured’s operations (on-going and completed) as described within the scope of work for this Agreement ○ loss arising from pollutants including but not limited to fungus, bacteria, biological substances, mold, microbial matter, asbestos, lead, silica and contaminated drywall ○ third party liability for bodily injury, property damage, clean up expenses, and defense arising from the operations; ○ diminution of value and Natural Resources damages 	<ul style="list-style-type: none"> ▪ The policy must insure contractual liability, name Owner Parties as an Additional Insured, and be primary and noncontributory to all coverage available to the Additional Insured. ▪ This insurance is not permitted to include any type of exclusion or limitation of coverage applicable to claims arising from: <ul style="list-style-type: none"> ○ Insured vs. insured actions. However exclusion for claims made between insured within the same economic family are acceptable. ○ impaired property that has not been physically injured ○ materials supplied or handled by the named insured. However, exclusions for the sale and manufacture of products are allowed. Exclusionary language pertaining to materials supplied by the insured shall be reviewed by the certificate holder for approval. ○ property damage to the work performed by the contractor ○ faulty workmanship as it relates to clean up costs

	<ul style="list-style-type: none"> ○ contractual liability ○ claims arising from non-owned disposal sites utilized in the performance of this Agreement. 	<ul style="list-style-type: none"> ○ punitive, exemplary or multiplied damages ○ work performed by subcontractors ▪ If coverage is provided on a Claims Made basis, coverage will at least be retroactive to the earlier of the date of this Agreement or the commencement of contractor services relation to the Work. ▪ The policy will offer an extended discovery or extended reporting clause of at least three (3) years. ▪ Completed Operations coverage shall be maintained through the purchase of renewal policies to protect the insured and additional insured for at least two (2) years after the property owner accepts the project or this contract is terminated. The purchase of an extended discovery period or an extended reporting period on a Claims Made policy or the purchase of occurrence based Contractors Environmental Insurance will not be sufficient to meet the terms of this provision.
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2. General Insurance Requirements

A. Definitions. For purposes of this Agreement:

- i. “ISO” means Insurance Services Office.
- ii. “Contractor” shall include the Builder and its subcontractors of any tier.
- iii. “Owner Parties” means (a) the City of Prairie View, Texas (collectively referred to as “Owner”), (b) the Project, (c) any lender whose loan is secured by a lien against the Work, (d) their respective shareholders, members, partners, joint venturers, affiliates, subsidiaries, successors and assigns, (e) any directors, officers, employees, or agents of such persons or entities, and (f) others as required by the Contract Documents.

B. Policies.

- i. Contractor shall maintain such Excess Liability, Professional and Pollution insurance in identical coverage, form and amount, including required endorsements, for at least two (2) years following Date of Substantial Completion of the Work to be performed under this Agreement. Contractor shall maintain such General Liability insurance in identical coverage, form and amount, including required endorsements, for at least ten (10) years following Date of Substantial Completion of the Work to be performed under this Agreement. Contractor shall provide written representation to Owner stating Work completion date.
- ii. All policies must:

- a. Be written through insurance companies authorized to do business in the State in which the work is to be performed and rated no less than A-: VII in the most current edition of A. M. Best's Key Rating Guide at all times Work is to be performed.
 - b. Provide a waiver of subrogation in favor of Owner Parties on all insurance coverage carried by Contractor, whether required herein or not.
 - c. Contain an endorsement providing for thirty (30) days prior written notice of cancellation to Owner.
 - d. Be provided to the Owner Parties in compliance with the requirements herein and shall contain no endorsements that restrict, limit, or exclude coverage required herein in any manner without the prior express written approval of the Owner.
- iii. Failure of any Owner Party to demand such certificate or other evidence of full compliance with these insurance requirements or failure of any Owner Party to identify a deficiency from evidence that is provided shall not be construed as a waiver of the Contractor's obligation to maintain such insurance.
 - iv. Contractor shall provide to the Owner a certified copy of all insurance policies required herein within ten (10) days of any such request. Renewal policies, if necessary, shall be delivered to the Owner prior to the expiration of the previous policy.
 - v. Commencement of Work without provision of the required certificate of insurance, evidence of insurance and/or required endorsements, or without compliance with any other provision of this Agreement, shall not constitute a waiver by any Owner Party of any rights. The Owner shall have the right, but not the obligation, of prohibiting the Contractor or any subcontractor from performing any Work until such certificate of insurance, evidence of insurance and/or required endorsements are received and approved by the Owner.

C. Limits, Deductibles and Retentions

- i. The limits of liability may be provided by a single policy of insurance or by a combination of primary and excess policies, but in no event shall the total limits of liability available for any one occurrence or accident be less than the amount required herein.
- ii. No deductible or self-insured retention shall exceed \$25,000 without prior written approval of the Owner, except as otherwise specified herein. All deductibles and/or retentions shall be paid by, assumed by, for the account of, and at the Contractor's sole risk. The Contractor shall not be reimbursed for same

D. Forms

- i. If the forms of policies, endorsements, certificates or evidence of insurance required by this Exhibit are superseded or discontinued, Owner will have the right to require other equivalent forms.
- ii. Any policy or endorsement form other than a form specified in this Exhibit must be approved in advance by Owner.

E. Evidence of Insurance. Insurance must be evidenced as follows:

- i. ACORD Form 25 Certificate of Liability Insurance for liability coverages.
- ii. ACORD Form 28 Evidence of Commercial Property Insurance for property coverages.
- iii. Evidence shall be provided to Owner prior to commencing Work and prior to the expiration of any required coverage.
- iv. ACORD Forms specify:
 - a. Owner as certificate holder at Owner's mailing address;

- b. Insured's name, which must match that on this Agreement;
 - c. Insurance companies producing each coverage and the policy number and policy date of each coverage;
 - d. Producer of the certificate with correct address and phone number and have the signature of the authorized representative of the producer;
 - e. Additional Insured status in favor of Owner Parties;
 - f. Amount of any deductible or self-insured retention in excess of \$25,000;
 - g. Designated Construction Project(s) General Aggregate Limit;
 - h. Primary and non-contributory status;
 - i. Waivers of subrogation; and
 - j. All exclusions and limitations added by endorsement to the General Liability coverage. This can be achieved by attachment of the Schedule of Forms and Endorsements page.
- v. Copies of the following shall also be provided:
 - a. General Liability Additional insured endorsement(s);
 - b. General Liability Schedule of Forms and Endorsements page(s); and
 - c. 30 Day Notice of Cancellation endorsement applicable to all required policies.

F. Contractor Insurance Representations to Owner Parties

- i. It is expressly understood and agreed that the insurance coverages required herein (a) represent Owner Parties' minimum requirements and are not to be construed to void or limit the Contractor's indemnity obligations as contained in this Agreement nor represent in any manner a determination of the insurance coverages the Contractor should or should not maintain for its own protection; and (b) are being, or have been, obtained by the Contractor in support of the Contractor's liability and indemnity obligations under this Agreement. Irrespective of the requirements as to insurance to be carried as provided for herein, the insolvency, bankruptcy or failure of any insurance company carrying insurance of the Contractor, or the failure of any insurance company to pay claims accruing, shall not be held to affect, negate or waive any of the provisions of this Agreement.
- ii. Failure to obtain and maintain the required insurance shall constitute a material breach of, and default under, this Agreement. If the Contractor shall fail to remedy such breach within five (5) business days after notice by the Owner, the Contractor will be liable for any and all costs, liabilities, damages and penalties resulting to the Owner Parties from such breach, unless a written waiver of the specific insurance requirement(s) is provided to the Contractor by the Owner. In the event of any failure by the Contractor to comply with the provisions of this Agreement, the Owner may, without in any way compromising or waiving any right or remedy at law or in equity, on notice to the Contractor, purchase such insurance, at the Contractor's expense, provided that the Owner shall have no obligation to do so and if the Owner shall do so, the Contractor shall not be relieved of or excused from the obligation to obtain and maintain such insurance amounts and coverages.
- iii. This Exhibit is an independent contract provision and shall survive the termination or expiration of the Contract Agreement.

G. Insurance Requirements of Contractor's Subcontractors

- i. Insurance similar to that required of the Contractor shall be provided by all subcontractors (or provided by the Contractor on behalf of subcontractors) to cover operations performed under any subcontract agreement. The Contractor shall be held responsible for any modification in

these insurance requirements as they apply to subcontractors. The Contractor shall maintain certificates of insurance from all subcontractors containing provisions similar to those listed herein (modified to recognize that the certificate is from subcontractor) enumerating, among other things, the waivers of subrogation, additional insured status, and primary liability as required herein, and make them available to the Owner upon request.

- ii. The Contractor is fully responsible for loss and damage to its property on the site, including tools and equipment, and shall take necessary precautions to prevent damage to or vandalism, theft, burglary, pilferage and unexplained disappearance of property. Any insurance covering the Contractor's or its subcontractor's property shall be the Contractor's and its subcontractor's sole and complete means or recovery for any such loss. To the extent any loss is not covered by said insurance or subject to any deductible or co-insurance, the Contractor shall not be reimbursed for same. Should the Contractor or its subcontractors choose to self-insure this risk, it is expressly agreed that the Contractor hereby waives, and shall cause its subcontractors to waive, any claim for damage or loss to said property in favor of the Owner Parties.

H. Use of the Owners Equipment

The Contractor, its agents, employees, subcontractors or suppliers shall use the Owners equipment only with express written permission of the Owners designated representative and in accordance with the Owners terms and condition for such use. If the Contractor or any of its agents, employees, subcontractors or suppliers utilize any of the Owners equipment for any purpose, including machinery, tools, scaffolding, hoists, lifts or similar items owned, leased or under the control of the Owner, the Contractor shall defend, indemnify and be liable to the Owner Parties for any and all loss or damage which may arise from such use.

I. Release and Waiver

The Contractor hereby releases, and shall cause its subcontractors to release, the Owner Parties from any and all claims or causes of action whatsoever which the Contractor and/or its subcontractors might otherwise now or hereafter possess resulting in or from or in any way connected with any loss covered by insurance, whether required herein or not, or which should have been covered by insurance required herein, including the deductible and/or uninsured portion thereof, maintained and/or required to be maintained by the Contractor and/or its subcontractors pursuant to this Agreement. **THE FOREGOING RELEASE AND WAIVER APPLY EVEN IF THE LOSS OR DAMAGE IS CAUSED IN WHOLE OR IN PART BY THE FAULT OR NEGLIGENCE OR STRICT LIABILITY OF THE OWNER PARTIE**

Attachment B

**Specifications
For
Villa Capri Wastewater Pump Station**

City of Prairie View

**Prepared By
Trilogy Engineering Services
650 N. Sam Houston Parkway E., Suite 300
Houston, Texas 77060
Phone: 877-463-1699**

DUPLEX SUBMERSIBLE PUMP STATION

PART 1: GENERAL

1.1 SCOPE

1.1.1 General

It is the intent of this specification to provide the requirements for use of the design, selection of materials, and construction of a duplex submersible wastewater pump station, hereinafter referred to as “standard pump station,” and all appurtenances. All standard pump station installations shall also meet the requirements of the Texas Commission on Environmental Quality (TCEQ) permit and the Texas Administrative Code, as applicable.

1.1.2 Work Included

The Contractor shall, unless specified otherwise, furnish all materials, equipment, tools, labor, and appurtenances necessary for site preparation, dewatering, construction, testing, and startup that is necessary to accomplish the work required under the contract to include, but not limited to, furnishing, and installing the standard pump station as described herein and as shown on the engineering drawings.

The equipment shall form a completely operable non-clog submersible wastewater pump system complete with pumps and rails, wet well liquid level sensors, wet well, hatch cover, valves, piping, water service(s), motor control center (MCC), grounding rods, all wiring and conduits, standard pump station concrete pad, fencing, driveway, landscaping and all associated appurtenances. The standard pump station shall include the following optional equipment as specified: standby generator, telemetry system, odor control system, VFDs, below ground vault system, and other specified options.

The contractor shall install the San Bernard Electrical Cooperative (SBEC) meter can and install/connect the electrical service to the SBEC service point at a hand hole for electrical service as shown on the engineering drawings and as defined in this specification.

1.1.3 Location of the Work

The construction shall be at the existing location on Marie Antoinette Drive. Damage to existing pavement surfaces, base courses and/or other surface improvements as a result of the contractor's activities shall be restored to original condition or better condition by the Contractor as provided for in the contract bid documents. The Contractor shall implement all required measures to provide CITY personnel and equipment with complete access to all work site areas during the entire course of performing this project.

1.1.4 Coordination of Work

The contractor shall be responsible for the satisfactory coordination of the standard pump station construction with other construction and activities in the area. Delays in work resulting from lack of such harmony shall not in any way be a cause for extra compensation by any of the

parties.

1.1.5 Responsibilities

- a. Notice to Residents: The contractor shall be responsible for notifying affected residents by the means of door hangers, mailings and/or all other appropriate means to alert residents at various times of the different phases of the construction of the standard pump station. The notifications shall indicate the various work activities that the Contractor will be performing on their street and what they can expect as far as service outages, disruption of traffic, access inconvenience, unusual odors, and other activities affecting residents.
- b. Licenses and Permits: The contractor shall be responsible for obtaining all licenses, permits, authorizations, approvals, access agreements, consent from utilities/persons/organizations upon whose property is impacted, written releases of responsibility and all other required documents.
- c. Work Access: The access to the site is on the existing City right of way. Additional accessibility to the site, as deemed necessary by the Contractor, shall be the responsibility of the contractor, and all expenses associated with work site additional accessibility shall be taken into consideration as part of the contractor's bid prices. Written releases from the property owner impacted by additional accessibility obtained by the contractor shall be provided to CITY.
- d. Clearance of Blockages or Obstructions in the Sanitary Sewer System: The contractor shall be responsible for clearance of blockages or obstructions in the sanitary sewer system created by the contractor's construction methods.
- e. Location and Exposure of Manholes: The contractor shall expose only those sanitary sewer structures necessary to perform the work.
- f. Existing Utility Operations: CITY shall shut down or manually operate all existing potable water, and sanitary sewer systems necessary for performance of the work. The Contractor shall submit a request to CITY for shut down or operational changes a minimum of 24 hours in advance.
- g. By-Pass Operations: The contractor shall be responsible for continuous maintenance of flow of all existing utilities at the project site, unless otherwise agreed to by CITY.
- h. Water Access: The contractor shall be responsible for obtaining water access necessary for performance of work under the contract from designated fire hydrants at the site of work or other suitable designated sources.
- i. Disposal: The contractor shall clean up and dispose of all waste materials from the construction activities including all materials removed from the sanitary sewer system in conformance with all laws, regulations, and standard practices.
- j. Secure Storage Area: The contractor shall find secure storage areas of a size adequate to accommodate the required vehicles, equipment, and materials for the period of performance of the contract. CITY will not provide any space or place to store materials.
- k. Maintenance of Traffic: The contractor shall be responsible for all maintenance of traffic and obtaining approval from the City.

1.1.6 Working Hours

The contractor shall carry out work in accordance with local ordinance and not to cause any

unreasonable nuisance to affected residents. Under emergency conditions, this limitation may be waived by the consent of CITY.

1.2 METHOD OF MEASUREMENT & PAYMENT

The work shall be measured, and the compensation determined in the following manner including all labor, materials, equipment, installation, testing, startup, painting, training, technical support, operation and maintenance manuals and appurtenances necessary to complete all the work in accordance with the contract documents:

Note: Measurement and payment provided in this pump station specification supersedes the measurement and payment provided in other specifications.

1.2.1 Site Work:

Site work including satisfactory coordination of utility construction, project site clearing and grubbing, fence removal and restoration, removal, and disposal of existing bituminous and/or concrete materials, existing structures, existing culvert or other pipe, furnishing and installing fill material, all necessary grading of the site and all other associated work required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis unless otherwise provided in the bid form.

1.2.2 Wet Well, Access Hatch and Concrete Cover and Slab:

Wet well, access hatch and concrete cover and slab including excavation, dewatering, base materials, backfilling, external and internal coatings, provisions for pipe openings, joint sealing and wrapping, exfiltration testing of the wet well, and all other associated work required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis unless otherwise provided in the bid form. (Note: Contractor shall verify condition of existing facilities. No additional payment for any required repairs.)

1.2.3 Submersible Wastewater Pumps:

Submersible wastewater pumps including associated hardware, cables, guide rails, support brackets, chains, all electrical wiring to the Motor Control Center (MCC), conduits and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a per each basis per each submersible wastewater pump size specified. Pumps shall be open impeller type non-grinder.

1.2.4 Main Power Electrical Services:

Main power electrical services including wiring and conduit from the service point in the SBEC installed hand hole to the SBEC meter can, wiring and conduit from the SBEC meter can to the standard pump station MCC, the main power disconnect in the MCC, and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis.

1.2.5 Piping and Valves:

Piping and valves, located within the fenced in area limits of the standard pump station site,

including fittings, flexible couplings, flange adaptors, flange connectors, gauges, pipe supports, brackets, vents, and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis. All piping and appurtenances outside the fenced in area limits of the standard pump station site shall be measured and paid for within other bid items as provided in the bid form.

1.2.6 Motor Control Center (MCC):

MCC including the following general components: wet well liquid level sensors, electrical wiring and connectors, supports, switches, sensors, controllers, alarms, indicator lights, meters, electrical equipment, back-up battery, enclosure, panels, controls, indicators, terminal strips, terminal blocks, posts, motor starters, main circuit breaker, operating handles, magnetic contactor coils, seal leak probe, permanent labels, alternator relay, fused control circuit transformer, adjustable three phase power monitor, wiring diagram, grounding rods, explosion proof fittings, surge protector equipment, suppressors fittings, brackets, conduits, and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis.

1.2.7 Driveways

The driveways including removal of existing concrete/bituminous and aggregate base sections, saw cutting of existing concrete/bituminous edges, preparation of subgrade, placement of aggregate base, construction of concrete/bituminous surfacing and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a square yard basis.

1.2.8 Culverts

The culvert pipe, end sections, base material and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a per linear foot basis per each size specified.

1.2.9 Valve Vault, Access Hatch, and Concrete Cover

Valve vault, access hatch and concrete cover(*) including excavation, dewatering, base materials, backfilling, external and internal coatings, provisions for pipe openings, joint sealing and wrapping, exfiltration testing of the valve vault, and all other associated appurtenances required to complete the project in accordance with the contract documents shall be measured and paid for on a lump sum basis.

(Wet Well, Access Hatch and Concrete Cover and Slab).

1.2.10 Miscellaneous:

All items required for the completion of the standard pump station and not included as a specific bid item shall be considered incidental to the project and no direct compensation will be made therefore.

1.3 REFERENCED STANDARDS (LATEST REVISION)

Wherever reference is made to any published standard, code, or standard specification, it shall mean the latest standard code, specification, or tentative specification of the technical society, organization, or body referred to which is in effect at the date of the opening of bids.

AWWA: C-153, C-900, C-905, C-909, C-906-90, C-151, C-153, C-111, C-600, C-651, and C-652, C913

ASTM: A-139, D-883, D-1785, D-1869, D-1120, D-2241, D-3350, D-1248-68, D-1598, D-1599, D-2583, D-2563, D-4097-82

PS 15-69: National Bureau of standards Voluntary Product Standard "Custom contact molded Reinforced Polyester Chemical Resistant Process Equipment".

ASME: PTC 8.2

TCEQ: Wastewater Collection/Transmission System Requirements

AASHTO Code

Texas Administrative Code (FAC)

Recommended Standards for Wastewater Facilities

National Electrical Code (NEC)

NEMA

Underwriters Laboratories (UL)

Federal Communication Commission

Institute of Electrical and Electronics Engineers (IEEE)

Internal Corrosion Direct Assessment (ICDA)

National Fire Protection Association (NFPA)

National Bureau of Standards (NBS)

Air Movement and Control Association (AMCA)

The Contractor shall, when required, furnish evidence satisfactory to CITY that materials and methods are in accordance with these codes, specifications, standards, etc. where so specified. In the event any questions arise as to the application of these codes, specifications, standards etc., copies shall be supplied on site by the Contractor. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

1.4 PARTIAL LISTING OF RELATED SECTIONS

01010 – Summary of Work

01026 – Applications for Payment

01153 – Change Order Procedures

01300 – Submittals

01311 – Schedule and Sequence of Construction

01370 – Schedule of Values

01700 – Contract Closeout

Note: This is only a partial listing of related sections. The Contractor shall be responsible to review the entire contract documents.

1.5 SUBMITTALS

1.5.1 General:

The contractor shall include the statement that the submittals have been reviewed and the materials meet CITY specifications and/or Standard details.

The required shop drawings for the work included under this specification are listed in section “Required Shop Drawings.” The contractor shall submit four (4) signed copies of shop drawings for CITY review a minimum of 30 days prior to the start of construction for each particular item.

For materials that the contractor is requesting deviations from this specification and/or Standard details, the contractor shall submit in writing a minimum of 60 days prior to construction, documentation to justify approval of these materials by Charlotte County Utilities (CITY). The Contractor shall submit four (4) signed copies of the material submittals. No fabrication/construction shall take place until the final shop drawings are reviewed by CITY. Final approval is at the discretion of CITY.

1.5.2 By-Pass Operations:

The Contractor shall submit a by-pass plan to CITY for review a minimum of 20 days prior to the start of by-pass operations. **NOTE:** By-Pass operations are not anticipated for this project since the station is currently inactive.

1.5.3 Shop Drawings:

1.5.3.1 Structure(s): The contractor shall provide shop drawings for the structure(s) certified by the manufacturer. The submittals shall include the specifics being proposed for the outside coatings, inside coatings of the wet well top, concrete and reinforcement, access hatch, structural loading, buoyance provisions, outside seam wrap, sealant between structure sections, invert and clocking of piping, size and location of openings, waterproof gaskets and any other appurtenances applicable to the structure(s).

1.5.3.2 Submersible Wastewater Pumps: The contractor shall provide shop drawings for the submersible wastewater pumps certified by the manufacturer. The submittals shall include at a minimum: pump characteristic curves showing capacity in GPM, NPSH, TDH, efficiency, pumping horsepower from 0 to 110 percent of design capacity, impeller type, discharge diameter, passible sphere size, design drawings, a written description of the interchangeability of rails and discharge between the supplied submersible wastewater pump and all CITY acceptable manufacturers, and any other appurtenances applicable to the submersible wastewater pumps. The shop drawings shall include certification data in the form of testing results indicating that all AWWA, state, federal, and engineering standards are met. If requested by CITY, the Contractor shall provide certified factory pump performance test data in the form of Section 6 of ASME PTC 8.2.

1.5.3.3 MCC: The contractor shall provide shop drawings for the MCC. The shop drawings shall include schematics, manufacturer brochures, and test results for pump settings, all MCC components, all other electrical components, and appurtenances applicable to the MCC. The shop drawings shall include certification data in the form of testing results indicating that all NEMA, UL, AWWA, state, federal, and engineering standards are met.

PART 2: PRODUCTS AND PERFORMANCE

2.1.1 GENERAL

All equipment and products shall be permanently identified with the model number and manufacture's nomenclature.

2.1.2 PERFORMANCE STANDARDS

This specification is a performance-based specification to allow multiple vendors to propose on this station. Where suggested vendors are made, they indicate the quality of product to be supplied and not necessarily the exact product listed.

The pump station will be serving a residential community of approximately 230 manufactured homes. The wastewater will be consistent with domestic sewage.

The station shall have two (2) pumps and the pumps shall alternate with each start of the pump. The pumps will be controlled by level controls in the wet well of the station. The pumps shall be rail mounted and removable from the surface for maintenance and repair.

Each pump shall have a separate discharge line that will exit the wet well and enter a valve pit with both discharge lines having a check valve and gate valve. The lines will combine into a common four (4) inch force main that is existing.

Pump Rated flow w/one (1) pump running	170 Gal/Min +/- 10%
Pump rated head	25 to 35 feet H ₂ O
Pump Efficiency (wire to water) at rated flow and head	65% (min.)
Motor Efficiency (if separately rated)	85% (min.)
Minimum Warranty period for parts and labor	12 months

System supplier shall provide pump curves and calculations to indicate the performance criteria are met.

2.2 EQUIPMENT

The equipment used in this work shall be all new and conform to the requirements for class, kind, size, and material as specified below and/or as provided in other sections of the contract documents.

2.2.1 Submersible Wastewater Pumps

2.2.1.1 General

- a. The submersible wastewater pumps covered by this specification are intended to be standard pumping equipment of proven ability as manufactured by Flygt Pumps, Hydromatic, ABS or other pre-approved manufacturers.
- b. The submersible wastewater pumps shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactory when installed as shown on the engineering drawings and/or standard details.
- c. The submersible wastewater pumps shall be heavy duty electric submersible, centrifugal non-clog units designed for handling raw and unscreened wastewater (minimum of 3” sphere). The submersible wastewater pumps shall be capable of operating in a liquid temperature up to 95°F and to a depth of 40 feet.
- d. The submersible wastewater pump and motor unit shall be suitable for continuous operation at full data plate load while the motor is completely submerged, partially submerged or totally non-submerged. The use of shower systems, secondary submersible wastewater pumps or cooling fans to cool the motor shall not be acceptable. The submersible wastewater pumps mechanical seals and motor units shall be from the same manufacturer to achieve standardization of operation, maintenance, spare parts, manufacturer’s service, and warranty.
- e. The submersible wastewater pump shall be tested and approved by Factory Mutual or U.L. as explosion proof for use in Class I, Groups C and D, Division 1 hazardous locations.
- f. The submersible wastewater pump shall have a sliding bracket for connecting to the dual guide stainless steel rail system. The sliding bracket, either directly or with an adaptor, shall allow for the interchangeability of all CITY acceptable submersible wastewater pump manufacturers at alternative locations.
- g. The submersible wastewater pump shall have a manufactured sized electrical cable and shall be a minimum of 50 linear feet. The cable shall conform to NEC and ICDA Standards with P-MSHA approval. The cable shall be sealed with a protective covering prior to installation.
- h. The submersible wastewater pump shall include a 316 stainless steel chain capable of supporting the weight of the submersible wastewater pump for installation and removal of the submersible wastewater pump. The chain shall be connected to the submersible wastewater pump bail using a 316 stainless steel clevis. The length of the chain shall be equivalent to the depth of the wet well plus additional 6 feet.
- i. The submersible wastewater pump discharge diameter shall be as required for the performance parameters provided. For discharge diameters 4” or larger, the manufacturer supplied submersible wastewater pump discharge shall be compatible among all CITY acceptable manufacturers’ submersible wastewater pump discharge base elbows.
- j. The submersible wastewater pump shall be cast iron with appropriate coating to protect submersible wastewater pump from corrosive properties of wastewater.
- k. The impeller shall be mounted directly on the motor shaft extension in such a manner that it shall not become detached if the submersible wastewater pump is operated in the wrong

direction. The impeller shaft shall be 420 stainless steel or greater and shall extend from the motor to the impeller cap nut.

l. All submersible wastewater pump mated surfaces shall be machine fitted for watertight sealing.

m. A 316 stainless steel lifting bail handle shall be provided on the submersible wastewater pump housing suitable for lifting the entire submersible wastewater pump assembly and attaching the lift chain.

n. The submersible wastewater pump shall operate to a maximum submergence of 40 feet including electrical cable entry.

o. All electrical parts shall be housed in an air or oil filled cast iron, water-tight casing.

p. All external hardware shall be 316 stainless steel.

q. The motor shall be designed to allow a minimum of 15 starts per hour.

r. The motors shall include thermal and moisture protection to shut down the motor due to high operational temperatures or infiltration of moisture. The motor shall be automatic restarted once the operational temperature is achieved.

s. All other components and appurtenances shall be as specified.

2.2.1.2 Approved Products:

The following submersible wastewater pump manufacturers are approved:

ABS

Hydromatic

Flygt

Other Pre-Approved Manufacturers

2.2.2 Motor Control Center (MCC)

2.2.2.1 General

The submersible wastewater pump motor control elements shall be installed in a 316 stainless steel NEMA 4X enclosure and include the following equipment:

- a. The panel shall be constructed of a heavy-duty box frame of all welded construction, utilizing specially formed #12-gauge 316 stainless steel angle and channel members.
- b. The dead front interior panel(s) for instrument mounting shall be constructed of a minimum of #11-gauge aluminum.
- c. The interior panel(s) for instrument mounting shall be constructed of a minimum of #14-gauge epoxy coated steel.
- d. Panel mounted controls and indicators shall maintain panel integrity. Suitable stiffness shall be provided when required to maintain flatness and provide extra rigidity.
- e. All panels wiring to external equipment shall be terminated on screw-type terminal strips.
- f. Terminal blocks shall be separated into groups (power, AC control, DC signal, data, etc.). All terminals shall be marked with legible permanent labels or otherwise identified.
- g. The MCC shall be mounted on 4" tubular top capped aluminum posts installed in concrete above the 100-year flood plain in accordance with the engineering drawings and standard details.
- h. All circuit breakers shall be accessible without opening the MCC dead front door(s).
- i. The MCC shall include at a minimum the following for each submersible wastewater pump: a motor starter, a HOA switch, a circuit breaker mounted with the operating handles through the dead front door(s), a leak seal indicating light, and an elapsed time meter.
- j. The MCC shall contain a manual pump control operated by a manual Hand/Off/Auto (HOA) by-pass switch located in the main MCC which is NOT an automatic redundant switch.
- k. The MCC shall include at a minimum: a 24-volt AC wet well liquid level sensors control circuit, 120-volt AC audio and visual alarms, an emergency generator receptacle with circuit breaker, a main circuit breaker, a control circuit breaker, and a 12-volt DC audio and visual battery backup alarm system.
- l. All power shall be disconnected from the control elements when the standard pump station main disconnect is in the "OFF" position.
- m. In each motor, a heat sensor thermistor and a seal leak probe shall be wired to a red warning signal light on the dead front door and shall be marked with legible permanent labels.
- n. An alternator relay shall be supplied to alternate the individual submersible wastewater pump on each successive cycle.
- o. A fused wet well liquid level sensors control circuit transformer shall be supplied to operate controls.
- p. In 480-volt AC applications, a fused control circuit transformer shall be supplied to provide 120-volts AC auxiliary equipment power.
- q. An adjustable single or three phase power monitor shall be provided to indicate and protect the pump via the control circuit in the event of loss of any phase, low and high voltage on any or all phases, and phase reversal with automatic reset and built-in time delay on trip.

- r. Audio and visual alarms shall be installed for monitoring high water levels, system equipment failures, and main input power levels failures. Audio and visual alarms shall be wired to sensors provided for a high-water level. Water level and system equipment failure alarms shall be powered directly from the main power supply to the MCC. The audio alarm shall be disabled by a manual silence switch; however, the visual alarm shall remain on until the alarm condition is corrected. If the alarm is a result of a loss of power to the pump station, the alarms shall automatically reset with the restoration of land line power or from a portable generator set. The loss of power audio and visual alarms shall be connected to a continually charged 24-hour back-up 12-volt battery.
- s. The panels shall be wired and assembled per UL 508 Standards. All electrical components and materials shall be listed by UL and shall bear the appropriate UL listing mark or classification. Each panel shall be listed and labeled as UL 508 Industrial MCC. Panels shall comply with NFPA 79 - Industrial Machinery. A permanent, non-paper wiring diagram shall be mounted on the inside of the cabinet door.
- t. A 120 VAC time delay relay (0 to 60 second adjustable on delay) to re-energize control circuit of lag submersible wastewater pump after power restoration shall be provided for step loading on submersible wastewater pumps over 20 HP. [Note: VFDs or soft starts shall be provided for submersible wastewater pumps over 20 HP as approved by CITY. **NOT APPLICABLE FOR THIS PROJECT**]
- u. All MCCs shall include a grounding rod with 10-gauge wire that is installed in accordance with current local, state, and national codes.
- v. 316 Stainless steel and schedule 80 polyvinyl chloride conduit piping shall be provided and installed as shown on the CITY design detail for connections between the MCC and the wet well structure, the MCC and the TCU (if required), the MCC and the standby generator (if required), the MCC and the odor control (if required), the MCC and the ground rod, and the MCC and the SBEC service point. Explosion proof fittings shall be provided and installed on the conduit as shown on the CITY design detail for connections between the MCC and the wet well structure.
- w. A trouble light including switches shall be mounted in the MCC.
- x. Surge protector equipment in accordance with UL 1449 Standards shall be installed on the load side of the MCC main circuit breaker for protection of all AC electrical equipment in the MCC and the motors from the effects of lightning induced currents, substation switching transients, and internally generated transients.
- y. All other components and appurtenances shall be as specified by the manufacturer.

2.2.2.2 Approved Products:

All electrical and accessories shall meet CITY standard details and specifications and shall be reviewed by CITY with the pump station submittals except as noted below.

Emergency Generator Connector: Pyle National MFG JRE 4100 PR.

Trouble Light: Leviton 9880

120 Volt Alarm Light: Ingram LXR-40 or Ohio Electric RL-3K

120 Volt Alarm Horn: Edwards ALA-896-N5

12 Volt Alarm Light: Ingram SLR-123

12 Volt Alarm Horn: Ingram AH-122DG

Elapsed Time Meter: ETMAC 200-10NG7 Round Mount
Surge Suppressor: Current Technology Transguard 150
Other Pre-Approved Manufacturers

2.2.3 Soft Starter [Note: A soft starter is not required for this project unless recommended by the pump manufacturer.]

2.2.3.1 General

- a. A dedicated soft starter for each submersible wastewater pump and connecting wiring shall be supplied by the submersible wastewater pump manufacturer for all motors equal to or greater than twenty (20) horsepower unless a VFD is required as per the Special Provisions. The soft starter shall be installed in a separate MCC, if required in the Special Provisions. No supplementary cooling in the form of an air conditioning unit shall be used, unless required in the Special Provisions.
- b. All of the components shall be a complete unit, factory wired, and tested as a complete system. Each soft starter shall operate as a stand-alone unit with no interaction with each other.
- c. The soft starter is a function control integrated in the pump station control panel sized to operate a variable torque load at the rated pump horsepower. The speed range shall be from a minimum speed of 0.5 Hz to a maximum speed of 60 Hz with an input voltage frequency range between 47.5 to 63 Hz.
- d. The soft starter shall be adjustable between 30-70% of the normal line voltage and shall be adjustable between 200 and 500% of the soft starter's full load current.
- e. The ramp time between initial torque and full load torque shall be adjustable between 1 and 120 seconds in increments of one second. The soft start shall include a jog function initialized directly from the keypad.
- f. The soft starter shall have Deceleration Control (soft stop) as a standard feature with an adjustable deceleration time from 1 to 120 seconds in increments of one second.
- g. The soft starter shall include the following integrated motor and load protection:
 - 1) Overload protection based on dynamic thermal register retained in the memory even upon loss of power.
 - 2) A manual reset and an automatic reset for unattended remote applications.
 - 3) Phase imbalance protection - adjustable sensitivity of two phases between 10% to 80% of the rated current.
 - 4) Phase reversal protection - motor will not run the inappropriate direct.
 - 5) High current protection - unit shall trip if the current exceeds eight times the set rated current.
 - 6) Under load protection - trip level shall be programmable from 40 to 100% of the full load motor current.
 - 7) Fault detection - all fault signals are to be reported to the LCD screen and the system shall not be disabled with a minimum recording of the last 20 events.
- h. Two programmable input signals shall be available, and each input shall have the capability of being programmed for None, Reset, Jog, and Enable Motor.
- i. All input and control devices shall be rated for 24 VDC control.

- j. Three physical signal relays and one virtual relay for communication shall be provided and individually programmed for Run, Top of Ramp, and Event listing.
- k. The soft starter shall be provided with a 2-line 20 character per line LCD display screen that does not use any type of code to allow for operator interface.
- l. Serial communications shall be a built-in function as a standard feature and shall include MODBUS, DeviceNet, Profibus DP, and ASI as the communication protocol available through the Field Bus Plug.
- m. The soft starter shall be programmable with a keypad and display that can be viewed/operated from the inside dead-front panel.
- n. Internal calibration adjustments are as follows:
 - 1) Minimum speed.
 - 2) Maximum speed.
 - 3) DC boost.
 - 4) Acceleration/deceleration rates.
 - 5) Stop mode (ramp or coast).
 - 6) Automatic restart after fault trip with lockout after five attempts to restart.
 - 7) Anti-wind milling adjustable brake time.
 - 8) Adjustable volts/Hertz.
- o. Unit mounted operator controls are as follows:
 - 1) Drive keypad display and a keypad Control Panel with a setting dial for each drive.
 - 2) PID values (optional).
 - 3) Speed – manually adjustable.
 - 4) Indicating speed meter.
 - 5) Power ON light.
 - 6) Alarm reset switch.
- p. The soft starter shall include the following standard features which shall be enabled if a TCU unit is specified:
 - 1) Built-in communication via a cable connection or terminal block.
 - 2) Built-in Modbus-TCU communications via a terminal block connection.
 - 3) One (1) connector slot for internally mounting plug-in options.
 - 4) Removable control terminal block.
 - 5) Sink/source selectable control logic.
- q. The soft starter shall include the following provisions for remote external controls, if a TCU is specified:
 - 1) Two (2) wire ON-OFF control.
 - 2) One (1) analog input for speed set point.
 - 3) Two (2) analog outputs: one for motor current and one optional for motor speed tied to PLC.
 - 4) Two (2) digital outputs: one for drive running and one for drive fault.
 - 5) Four (4) digital inputs: one for start/stop, one for enable (trips, low wet well level, and emergency stop push button), one for auxiliary for high motor winding temperature, and one for speed select signal for Hand-Off-Auto.
 - 6) One (1) hand-off auto switch.

2.2.4 Wet Well Liquid Level Sensors

2.2.4.1 General

- a. The wet well liquid level sensors shall be operated by reduced voltage, intrinsically safe mercury switch sealed in a solid polyurethane float ball.
- b. The wet well liquid level sensors cords shall be suspended from a 316 stainless steel bracket attached to the lip of the access hatch at the depth specified as shown on the CITY design detail.
- c. In addition to the float type level sensors a secondary transducer type liquid level sensor shall be included.
- d. The operator shall have the ability to electronically switch from one level system to the other as the primary control instrument.
- e. Switching between level control systems shall be performed by the operator. A fail-safe switching mechanism is not required.

2.2.4.2 Approved Products:

All mercury wet well liquid level sensors and accessories shall meet CITY standard details and specifications.

2.2.5 Telemetry Control Unit (TCU)

2.2.5.1 General

- a. The TCU transmits analog signals from the pump station MCC to the CITY central monitoring location and from the CITY central monitoring location to the pump station MCC.
- b. The TCU includes a grounding rod with 10-gauge wire and shall be installed in accordance with current local, state, and national codes.
- c. The TCU data shall be displayed continuously at the TCU by a default screen and indicating LED and shall indicate, at a minimum:
 - 1) Operating status of each submersible wastewater pump
 - 2) Operating mode of the standard pump station
 - 3) Wet well liquid level sensors status
- d. All other components and appurtenances including tower, antenna, control box, conduits, etc. shall be as specified on the engineering drawings and in the CITY standard details.
- e. CITY will provide the TCU frequency to the contractor.

2.2.5.2 Approved Products:

The TCU and accessories shall meet CITY standard details and specifications as determined by CITY.

2.2.6 Variable Frequency Drive (VFD) (if required) [Note: Not required for this project.]

2.2.7 Standby Generator and Automatic Transfer Switch (ATS) (if required) [Note: Not required for this project.]

2.2.8 Emergency Generator Connector (if required) [Note: Not required for this project.]

2.2.9 Odor Control (if required) [Note: Not required for this project.]

2.3 MATERIAL

The materials used in this work shall be all new and conform to the requirements for class, kind, size, and material as specified below and/or as provided in other sections of the contract documents.

All stainless steel shall be 316 austenitic, non-magnetic unless otherwise required.

2.3.1 Wet Well, Access Hatch and Concrete Cover and Slab [Note: Not required for this project. Wet well is existing. Contractor shall confirm proper operation.]

2.3.1.1 General

- a. Pre-cast circular concrete wet wells and the wet well concrete cover shall comply with the structural requirements of ASTM C478, Type II, acid resistant cement and shall attain a minimum compressive strength of 4000 pounds per cubic foot in 28 days. The wet well pre-cast base section shall be monolithic with the bottom section of the wet well. The precast wet well top shall include the access cover frame.
- b. The wet well design shall assume a soil density of 130 pounds per cubic foot and a concrete density of 150 pounds per cubic foot and shall resist flotation under the conditions of an empty wet well and a groundwater level from the wet well base to the finished grade including a safety factor of 1.5.
- c. Cast in place concrete slab shall comply with ACI and ASTM standards. Concrete shall be ASTM C-150 Portland Type II 3,500 psi air entrained at 6% plus or minus 1% unless otherwise noted on the engineering plans. Fine aggregate shall be ASTM C33 and coarse aggregate ASTM C33 ¾" maximum size. Reinforcing shall be ASTM A615 Grade 60 deformed bars and stirrups and Grade 40 ties, welded wire fabric shall meet the requirements of ASTM A185, and fabricated reinforcing steel shall be in accordance with ACI 315. Form lumber shall be in accordance with ACI 347 and shall be used with removable metal form ties, non-staining and moisture absorbing form release agents, and stainless steel dovetail anchor slots, and water stops as shown on the engineering drawings.
- d. The wet well shall be set on a number 57 stone base in accordance with section 901 "Coarse Aggregate" of the latest revision Texas Department of Transportation Standard Specifications for Road and Bridge Construction.
- e. The individual wet well sections shall fit together with interlocking tongue and groove joints. Four (4) foot diameter wet wells shall be sealed with a R-4 rubber gasket and six (6) foot or larger diameter wet wells shall be sealed with two (2) 1-½" butyl rubber or plastic wet wells joint seal squeezed in and out to verify sealing. The outside of the groove joints for all wet wells shall be covered with a continuous overlapping butyl rubber wrap a minimum of eight (8) inches wide.
- f. The wet well shall include elastomeric gasket(s) for all piping. The gasket(s) shall have a stainless steel adjustable strap to seal the gasket to the pipe. An elastomeric gasket(s) with a stainless-steel adjustable strap to seal the gasket to the pipe shall be installed in all

on site core bored holes.

g. The outside surface of the wet well shall be covered with 3 coats (black/red/black or color changes to allow CITY to verify multiple coats) of coal tar epoxy coating with a minimum dry film thickness of 10 mils per coat for a total of 30 mils dry film thickness. Subsequent coats shall be applied within 48 hours of the previous coat. The coal tar epoxy coating shall be Koppers Bitumastic No. 300m or CITY approved equal.

h. The internal wet well coatings (including cover) shall be a polymorphic resin, a calcium aluminate mortar, an epoxy coating, or a polyurethane coating. Coatings shall be installed in accordance with the manufacturer's specifications.

i. The wet well access hatches and frames shall be compatible with the lift-out rail system in accordance with the engineering drawings and approved shop drawings. The wet well access hatch and frame shall be aluminum with 316 stainless steel hinges, handles, and associated hardware in accordance with CITY standard details.

j. The standard pump station influent piping inverts shall be a minimum of sixty (60) inches above the base invert.

2.3.1.2 Approved Products:

The following access hatch and frame is approved:

Halliday S1R aluminum access cover with standard locking bar and frame

2.3.2 Valve Vault, Access Hatch, and Concrete Cover [NOTE: This item is required]

2.3.2.1 General

a. A valve vault, access hatch and concrete cover and all other components and appurtenances shall be as specified on the engineering drawings and in the CITY standard details.

b. Pre-cast rectangular concrete valve vault and the valve vault concrete cover shall comply with the structural requirements of ASTM C913, Type II, acid resistant cement and shall attain a minimum compressive strength of 4000 pounds per cubic foot in 28 days. The valve vault pre-cast base section shall be monolithic with the bottom section of the valve vault. The pre-cast valve vault cover shall include a cast-in-place access hatch frame.

c. The valve vault design shall assume a soil density of 130 pounds per cubic foot and a concrete density of 150 pounds per cubic foot and shall resist flotation under the conditions of an empty valve vault and a groundwater level from the valve vault base to finished grade, including a safety factor of 1.5.

d. The valve vault shall be set on a number 57 stone base in accordance with section 901 "Coarse Aggregate" of the latest revision Texas Department of Transportation Standard Specifications for Road and Bridge Construction.

e. The individual valve vault sections shall fit together with interlocking tongue and groove joints. The valve vault precast top and walls shall be sealed with a R-4 rubber gasket or with two (2) 1-½" butyl rubber or plastic valve vaults joint seal squeezed in and out to verify sealing. The outside of the groove joints for all valve vaults shall be covered with a continuous overlapping butyl rubber wrap a minimum of eight (8) inches wide.

f. The outside and inside surfaces (including cover) of the valve vault shall be covered with 3 coats (black/red/black or color changes to allow CITY to verify multiple coats) of coal tar

epoxy coating with a minimum dry film thickness of 10 mils per coat for a total of 30 mils dry film thickness. Subsequent coats shall be applied within 48 hours of the previous coat. The coal tar epoxy coating shall be Koppers Bitumastic No. 300m or CITY approved equal.

g. The valve vault access hatch and frame shall be aluminum with 316 stainless steel hinges, handles, and associated hardware in accordance with CITY standard details.

h. The valve vault piping inverts shall be a minimum of eighteen (18) inches above the base invert. The valve vault cover shall be minimum thirty-six (36) inches from the top of the pipe to the finished grade.

2.3.2.2 Approved Products:

The following access hatch manufacturer is approved:

Halliday S2R aluminum access cover with standard locking bar and frame

2.3.3 Discharge Piping and Valves

2.3.3.1 General

a. The discharge piping and valves shall be designed, constructed, and installed in accordance with the best practices and methods and shall operate satisfactory when installed as shown on the drawings. The piping and valves shall be supported to the wet well walls and above ground as shown on the engineering drawings and the CITY standard details.

b. The piping and valves shall be furnished and installed in accordance with the project drawing.

2.3.3.2 Approved Products:

The following aluminum clean-out coupler with cap and chain manufacturer is approved:

Kamlock

2.3.4 Driveways

The contractor shall construct a sixteen (16) foot minimum concrete driveway as shown on the engineering drawings and CITY standard details and Specifications. The driveway shall include right-of-way culverts, if required, and drainage shall be in accordance with City specifications.

2.3.5 Landscaping

The contractor shall provide landscaping, if required, in accordance with CITY Specification.

PART 3: EXECUTION

3.1 GENERAL

a. The contractor shall prepare the standard pump station site for construction. This shall include the establishing of maintenance of traffic, surveying, site clearing, installation of silt fence, exposure of existing underground utilities, and notification of residences that may be impacted by the construction. The standard pump station wet well and concrete cover and slab, valves, piping, pump/motor assemblies and rails, MCC, water service(s), electrical wiring/conduit,

pad, fencing and gates, access panel and frame, driveway/culverts, optional equipment, and accessories shall be installed in accordance with the contract documents.

b. Installation shall be made by skilled and licensed technicians and coordinated with other trades, as necessary.

c. The standard pump station receives wastewater flows continuously at varying rates and the level of the flow in the wet well is monitored by liquid level sensors. The wet well liquid level sensors shall be suspended at various levels in the wet well and transmit the level of the wastewater in the wet well directly to the MCC. The level sensors shall be set for the following conditions in coordination with CITY operational personnel:

Pump off

Pump on

Lag pump on

High liquid level alarm

d. The MCC is an integrated system. The contractor shall furnish and install the MCC as one complete package to include all equipment and appurtenances regardless of the manufacturer and shall be responsible for the MCC to perform as a fully integrated operable system.

The MCC shall be designed to provide the following functions:

Turns pump off

Turns pump on

Turns lag pump on

Provides for alternate pumps operation

Activates the audio and visual alarms in the event of high liquid wet well levels

Activates the battery backup high liquid level alarm in event of power loss and resets the alarm when the power is restored

Allows for the manual connection to a portable generator

Provides phase monitoring and protection

Monitor and indicates pump seal failures

If a TCU is required, the applicable MCC functions shall be transferred to the TCU/PLC unit to control as outlined in the TCU section.

e. The TCU shall be designed to provide the following functions:

Lead/Lag: One pump operates as the lead or in-service pump, and one acts as the lag or backup pump. The PLC alternates the lead and lag pump at operator settable intervals as required.

Monitors pump station operational status and notifies County Central Control of normal and abnormal operations such as, but not limited to: status of power, generator operations, pump trip, high/low alarm levels in the wet well discharge flow, and records pump run time and pump starts.

Pump on, Pump off

High level, Low level

Phase Voltage

Liquid Level Control Sequence

Refer to CITY standard details for the complete list of the functions

f. The contractor shall coordinate the work of all of the sub-contractors, suppliers, manufacturers, etc. for the complete installation, integration, interconnection, testing, calibration, and startup of the instruments, sensors, controls, and related accessories.

g. The contractor shall provide for all temporary utilities and services required for his operations including but not limited to electrical power, water, sanitary facilities, etc. The contractor shall furnish, install, and maintain all temporary utilities and services during the contract period including removal and restoration of disturbed areas upon completion of the work. Such facilities shall comply with regulations and requirements of the National Electrical Code, OSHA, Texas Power and Light, and applicable Federal, State, and Local codes, rules, regulations and in accordance with CITY Specification.

h. The contractor shall be prepared to maintain wastewater flow as a part of his operations and provide all pumps, piping, and other equipment to accomplish this task, perform all construction, obtain all permits, pay all costs, and perform complete restoration of all existing facilities to equal or better condition to the satisfaction of CITY in accordance with CITY Specification Section 009910 – Sanitary Sewer System Rehabilitation.

3.2 INSTALLATION

a. Grounding rods shall be provided to adequately and independently ground the MCC, standby generator, TCU, and odor control in accordance with the contract documents. A grounding loop with a single ground rod may be substituted if approved by CITY.

b. The contractor shall connect the biofilter unit to the pump station water supply in accordance with the engineering drawings.

c. All wire ends shall be identified with wire markers at both ends.

d. All instrumentation wiring shall be shielded from a continuous source to destination and shall be grounded in accordance with the manufacture's recommendation.

3.3 BEDDING, BACKFILL, AND COMPACTION

a. All bedding, backfill and compaction shall meet the requirements of CITY Standard details and TxDOT specifications.

3.4 CALIBRATION

The contractor shall ensure the following:

a. The instruments shall be calibrated by the manufacturer in accordance with the contract documents.

b. A calibration sticker noting the date, calibration data and the technician's initials shall be affixed to the instrument. A calibration data sheet and log shall be prepared for CITY.

3.5 TESTING

a. The contractor shall not initially energize the equipment without the approval of CITY.

b. After installation and calibration, the contractor shall functionally test the major equipment and electrical components to verify their compliance with the manufacturers recommended specifications and the contract documents.

c. The contractor shall not activate or turn on any equipment until each control circuit has been

red-lined for completeness and functionality and safety interlocks are tested.

d. The contractor shall document site testing activities by written test procedures and a testing log shall be maintained at the project site or given to CITY.

e. Wet well and valve vault exfiltration test shall consist of plugging all inlets and outlets, filling the wet well or valve vault with water to the rim of the structure, and letting the water remain for 24 hours. The water level is returned to the top of the rim and let stand for two (2) hours. No leakage shall be allowed for the test to pass.

3.6 STARTUP OPERATIONS

a. The system integrator/supplier shall provide equipment startup services for the project.

b. The system integrator/supplier shall be responsible for providing factory trained representatives for the startup of equipment requiring factory assistance during startup.

c. The system integrator/supplier shall coordinate with CITY to assist with the startup activities and provide necessary training of CITY personnel in the operation and maintenance of the system.

d. Upon construction installation of CITY -maintained sewer pump stations, startup operations and testing shall be conducted prior to final acceptance and release of sewer flows under the supervision of the CITY Engineering Department. At a minimum, a representative of the pump Supplier, a representative of the Contractor, and a representative of CITY-Wastewater Resources Department's Pump Station Maintenance Division will be present for startup testing. A "CITY Pump Station Startup Check List," as provided in CITY Standard Details, shall be completed and signed off in entirety before a facility shall be accepted by CITY.

3.7 TECHNICAL MANUALS

a. The contractor shall provide operation and maintenance data in the form of an instructional manual. The manual shall be in a three-ring binder and be arranged in sections and include a table of contents. The manual shall include appropriate drawings, schematics, pictures, sketches, specifications, flow diagrams, manufacturer's documents, etc. required to operate and maintain the individual standard pump station functions and the overall standard pump station as a system.

b. Two (2) copies of the O&M manuals shall be made available to CITY 30 days prior to the standard pump station start-up for review prior to start up. Upon CITY validation, the contractor shall provide two (2) hard copies and one electronic copy of the approved O&M manuals including copies of certified tests and inspection.

Attachment C

PAYMENT BOND

THE STATE OF TEXAS §
 § KNOW ALL BY THESE PRESENTS:
COUNTY OF _____ §

That we, _____, as Principal herein, and _____, a corporation organized and existing under the laws of the State of Texas and who is authorized and admitted to use surety bonds in the State of Texas, as surety, are held and firmly bound unto the **City of Prairie View, Texas**, located in **Waller County, Texas**, Obligee herein, in the sum of _____ Dollars (\$ _____) for the payment whereof, the said Principal and Surety bind themselves and their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents:

WHEREAS, Principal has entered into a certain written contract with the Obligee dated the ____ day of _____, 20____, which contract is hereby referred to as “the Contract” and incorporated herein and made a part hereof for all purposes to the same extent as if copied at length, for the following project: _____

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall directly or indirectly timely make payment to each and every claimant (as defined in Chapter 2253, Texas Government Code, as amended) supplying labor or materials in the prosecution of the work under the Contract, then this obligation shall be void; otherwise, to remain in full force and effect. *This obligation may be enforced by the Obligee in the event of bankruptcy or default by Principal in payments to suppliers of labor or materials in the prosecution of the work under the Contract, in either of which events the Surety shall make such payments as Principal has failed to pay and as may be required to complete the work under the contract.* The Surety stipulates and agrees that no change, extension of time, alteration, omission, addition or other modification to the terms of the Contract will affect its obligations on this bond, and it hereby waives notice of any such changes, extensions of time, alterations, omissions, additions, or other modifications, to the Contract or to related subcontracts, purchase orders or other obligations, and any notices provided in such regard shall not create as to any party a duty related thereto.

PROVIDED, HOWEVER, that this bond is executed pursuant to Chapter 2253 of the Texas Government Code, as amended, and all right and liabilities on this bond shall be determined in accordance with the provisions of said statute, to the same extent as if it were copied at length herein. All notices shall be delivered in writing to the addresses shown below or to addresses provided in the Contract.

IN WITNESS WHEREOF, the duly authorized representatives of the Principal and the Surety have executed this instrument.

SIGNED and SEALED this _____ day of _____, 20__.

The date of bond shall not be prior to date of the Contract.

ATTEST:

(Principal) Secretary

(S E A L)

Witness as to Principal

PRINCIPAL

By: _____

Name: _____

Title: _____

Address: _____

Telephone Number: _____

PERFORMANCE BOND

THE STATE OF TEXAS §
 § KNOW ALL BY THESE PRESENTS:
COUNTY OF _____ §

That we, _____, as Principal herein, and _____, a corporation organized and existing under the laws of the State of _____ and who is authorized and admitted to issue surety bonds in the State of Texas, Surety herein, are held and firmly bound unto the **City of Prairie View, Texas**, located in **Waller County, Texas**, Obligee herein, in the sum of _____ Dollars (\$_____) for the payment of which sum we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a certain written contract with the Obligee dated the ___ day of _____, 20___, which contract is hereby referred to as “the Contract” and is incorporated herein and made a part hereof for all purposes to the same extent as if copied at length, for the following project: _____

NOW, THEREFORE, the condition of this obligation is such, if the said Principal shall faithfully perform the work in accordance with the plans, specifications, and other Contract Documents and shall fully indemnify and hold harmless the Obligee from all costs and damages which Obligee may suffer by reason of Principal’s failure to perform the Work in conformity with the Contract Documents, and reimburse and repay Obligee for all outlay and expense that Obligee may incur in making good such default, then this obligation shall be void; otherwise, to remain in full force and effect.

Whenever Principal shall be declared by Obligee to be in default under the Contract, the Surety shall, upon request of Obligee and within ten (10) calendar days from receipt of Obligee’s notice of Principal’s default, commence and thereafter complete performance of Principal’s obligations under the Contract. Surety acknowledges that its obligations under this bond and as detailed herein and in the Contract Documents are not conditioned on a termination of the Principal by the Obligee. Surety further acknowledges and agrees that Surety shall obtain the Obligee’s approval and consent with respect to the contractor(s) that Surety may retain to replace defaulted Principal or otherwise honor the obligations under this Bond.

This Bond covers all contractual obligations of Principal under the Contract, including, without limitation, the indemnity, warranty and guaranty obligations. The Surety stipulates and agrees that no change, extension of time, alteration, omission, addition or other modification to the terms of the Contract will affect its obligations on this bond, and it hereby waives notice of any such changes, extensions of time, alterations, omissions, additions, or other modifications, to the Contract or to related subcontracts, purchase orders, or other obligations, and any notices provided in such regard shall not create as to any party a duty related thereto. The penal limit of this bond shall automatically be increased by the amount of any change order, supplemental agreement, or amendment which increases the price of the Contract.

PROVIDED, HOWEVER, that this bond is executed pursuant to Chapter 2253 of the Texas Government Code, as amended, and all rights and liabilities on this bond shall be determined in accordance with the provisions of such statute, to the same extent as if it were copied at length herein. All notices shall be delivered in writing to the addresses shown below or to addresses provided in the Contract.

IN WITNESS WHEREOF, the duly authorized representatives of the Principal and the Surety have executed this instrument.

SIGNED and SEALED this _____ day of _____, 20__.

The date of bond shall not be prior to date of the Contract.

ATTEST:

(Principal) Secretary

(S E A L)

Witness as to Principal

PRINCIPAL

By: _____

Name: _____

Title: _____

Address: _____

Telephone Number: _____

ATTEST:

Secretary

(S E A L)

Witness as to Surety

SURETY

By: _____

Name: _____
Attorney in Fact

Address: _____

Telephone Number: _____

An original copy of Power of Attorney shall be attached to Bond by the Attorney-in-Fact.

Approved as to Form:

City of Prairie View, Texas
44500 Business Highway 290
Prairie View, TX 77446

By: _____

Title: _____

Date: _____

Attachment D

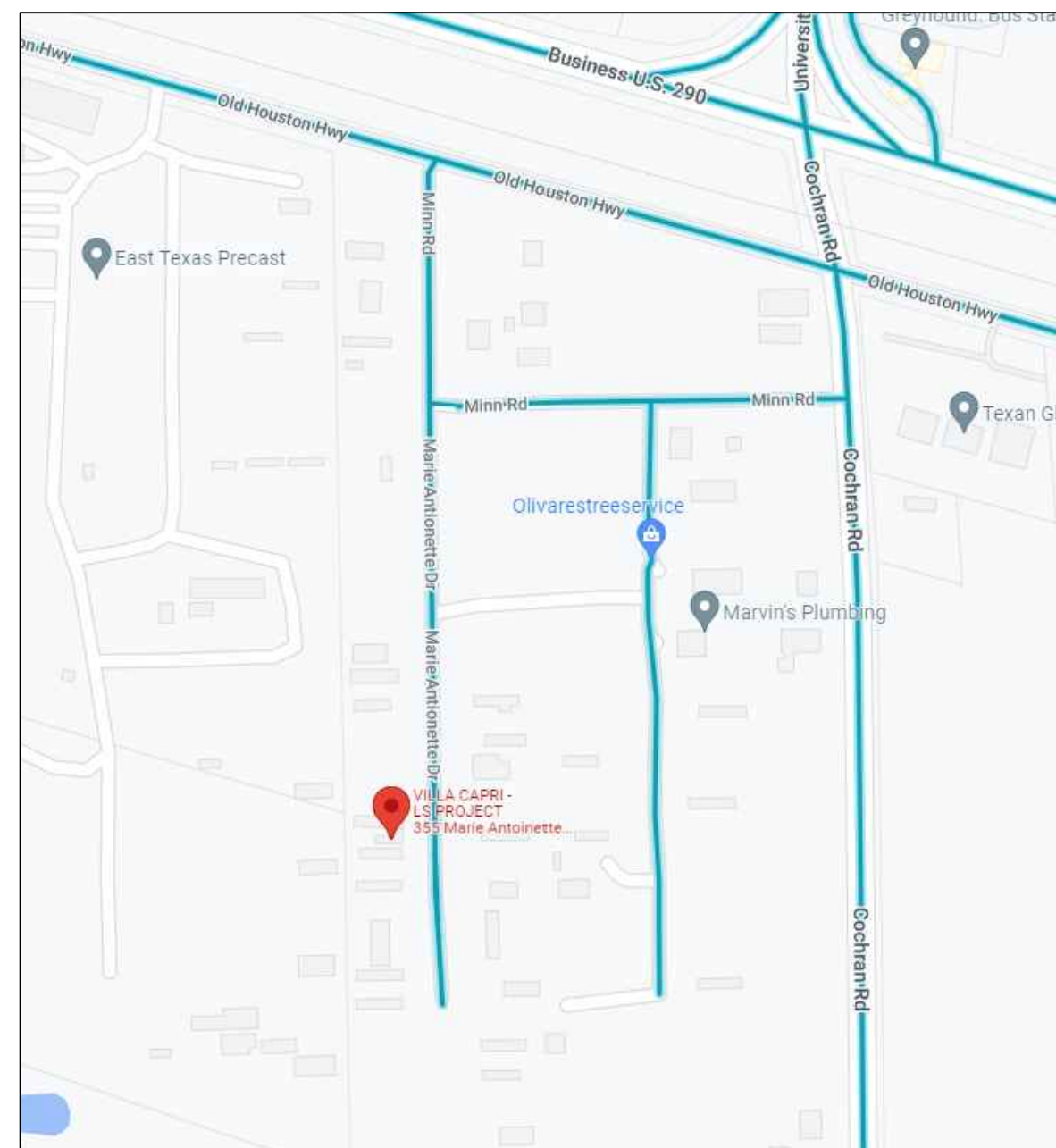
CONSTRUCTION PLANS FOR PROPOSED VILLA CAPRI INFRASTRUCTURE IMPROVEMENTS SEWAGE LIFT PUMP



PROJECT MAP

SHEET INDEX

1. COVER PAGE
2. GENERAL NOTES
3. SITE PLAN
4. SEWAGE LIFT PUMP DETAILS



VICINITY MAP
PINCODE: 77445

COUNCIL MEMBER
Waymond Perry

COUNCIL MEMBER
Jonathan Randle

COUNCIL MEMBER
Nathan Alexander

COUNCIL MEMBER
Wendy Williams

COUNCIL MEMBER
Xante' Wallace



MAYOR
Ron Leverett

NO.	DATE	REVISION	APP.
3	MM/DD/YY	BRIEF DESCRIPTION	XXX
2	MM/DD/YY	BRIEF DESCRIPTION	XXX
1	MM/DD/YY	BRIEF DESCRIPTION	XXX

TRILOGY ENGINEERING SERVICES 650 N. SAM HOUSTON PARKWAY E., SUITE 300 HOUSTON, TEXAS 77054 PH: 877.463.1699 TX FIRM NO: 17715	ENGINEER'S SEAL 07/01/2023
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NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF PRAIRIE VIEW
 PRAIRIE VIEW PUBLIC WORKS
 Business Highway 290 N,
 Hempstead, TX 77445
 PH: 936.587.3711

WATER	STORM WATER QUALITY		
WASTE WATER	FACILITIES		
STORM WATER	TRAFFIC & TRANSPORTATION/ STREET & BRIDGE		
TRAFFIC SIGNAL			
CITY ENGINEER	DATE	DIRECTOR OF PRAIRIE VIEW PUBLIC WORKS	DATE
SHEET NO 01 OF 04 SHEETS			

FOR CITY OF PRAIRIE VIEW USE ONLY

**CITY OF PRAIRIE VIEW
PUBLIC WORKS
GENERAL CONSTRUCTION NOTES**

1. CONSTRUCT WASTEWATER COLLECTION SYSTEMS, WATER LINES AND STORM DRAINAGE IN ACCORDANCE WITH THE LATEST EDITION OF THE PUBLICATIONS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING PUBLISHED BY HOUSTON PUBLIC WORKS.
2. UTILITIES PRESENTED ON THESE DRAWINGS ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY TEXAS ONE CALL AT 713-223-4567/811 OR 800-344-8377 AND LONE STAR NOTIFICATION CENTER AT 800-669-8344 AT LEAST 48 HOURS BEFORE PROCEEDING WITH ANY EXCAVATION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO EXISTING WATER, WASTEWATER AND STORM DRAINAGE LINES. DAMAGES SHALL BE REPAIRED IN ACCORDANCE WITH THE HOUSTON PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING AND STANDARD CONSTRUCTION DETAILS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, AND STREET PAVING REFERENCED ABOVE, AT NO ADDITIONAL COST.
4. CONTRACTOR SHALL NOTIFY THE OFFICE OF THE CITY ENGINEER, HOUSTON PUBLIC WORKS IN WRITING PRIOR TO COMMENCING CONSTRUCTION.
5. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND ANY DRAINAGE DITCH OR STRUCTURE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO EXISTING CONDITIONS OR BETTER.
6. CONTRACTOR SHALL COMPLY WITH LATEST EDITION OF OSHA REGULATIONS AND THE STATE OF TEXAS LAWS CONCERNING EXCAVATION.

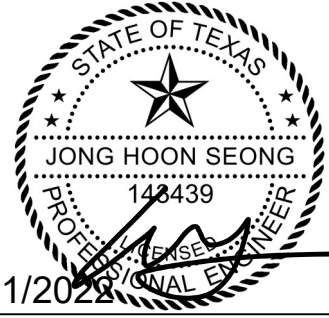
SANITARY SEWER NOTES

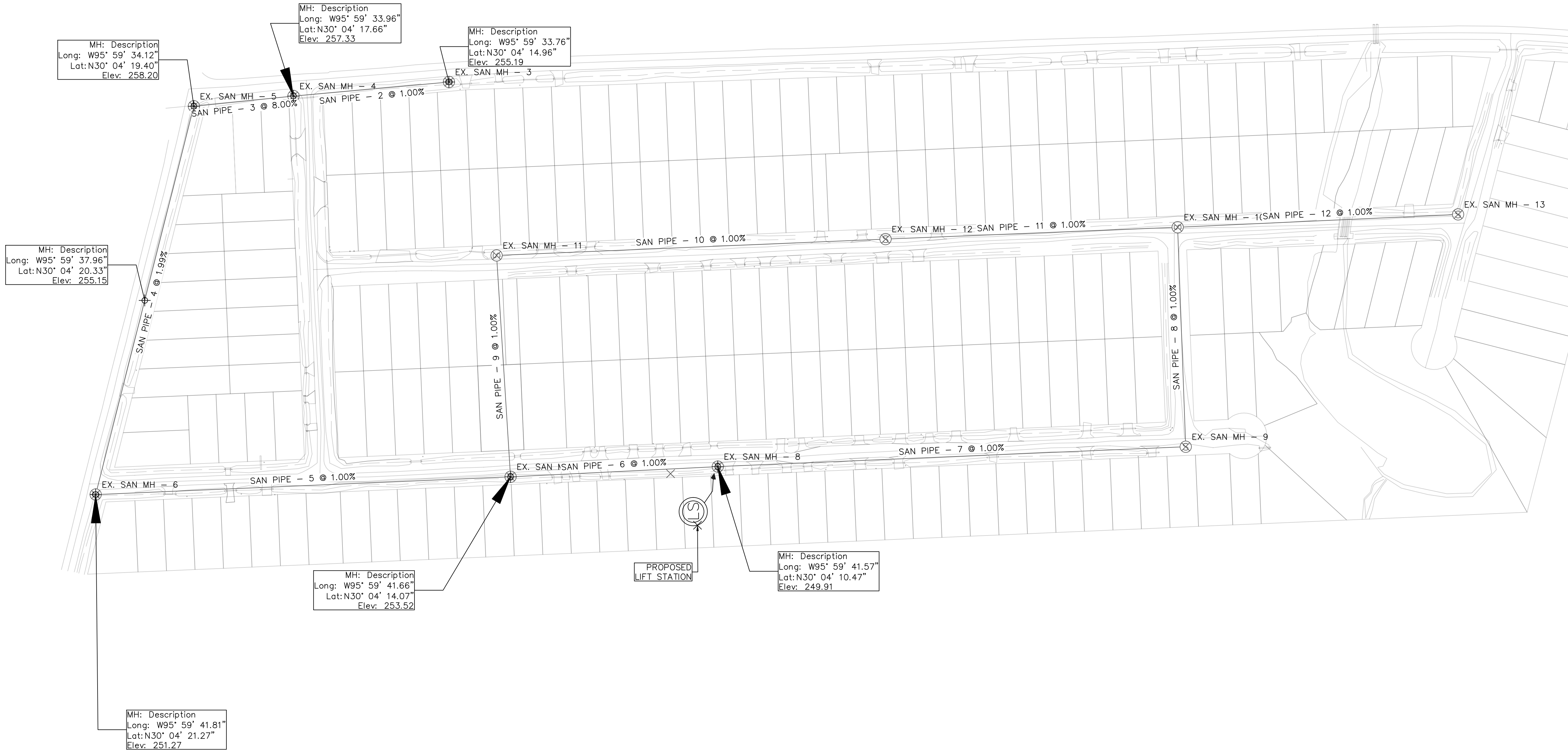
1. ALL SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF HOUSTON "STANDARD CONSTRUCTION SPECIFICATIONS FOR WASTEWATER COLLECTION SYSTEMS, WATER LINES, STORM DRAINAGE, STREET PAVING, AND TRAFFIC" AND ALL CURRENT AMENDMENTS THERETO AND BE SUBJECT TO A STANDARD EXFILTRATION TEST. TESTS ARE TO BE PERFORMED ON THE TOTAL FOOTAGE OF SEWER LINE INCLUDED IN THE PROJECT. REQUIREMENTS OF TEXAS ADMINISTRATIVE CODE, TITLE 30 CHAPTER 217, "DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS" SHALL GOVERN WHERE CONFLICTS EXIST EXCEPT WHERE CITY REQUIREMENTS ARE MORE STRINGENT.
2. ALL MANHOLES ARE TO BE PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02082-01, 02082-02, 02082N-02, 02082-03, AND 02082N-03 UNLESS OTHERWISE NOTED. USE 2019 VERSION AS APPLICABLE.
3. SANITARY SEWER MANHOLES WILL HAVE BEDDING AND BACKFILL PER CITY OF HOUSTON STANDARD DETAILS DRAWING NO. 02317-08 UNLESS OTHERWISE NOTED.
4. THE SANITARY SEWER PVC PIPE SHALL BE ASTM D 3034 TYPE PSM SDR 26 GRAVITY SEWER PIPE, ASTM D2241 SDR 26 PRESSURE RATED SEWER PIPE OR AWWA C-900 DR-18 GREEN PVC PRESSURE RATED SEWER PIPE BASED ON CONSTRUCTION CONDITION REQUIREMENT AND CONFORMING TO ASTM D1784 AND CITY OF HOUSTON STANDARD SPECIFICATION SECTION 02506 POLYVINYL CHLORIDE PIPE.
5. WHEN SS PRESSURE RATED PVC PIPE IS USED ON WATERLINE (WL) CROSSING UNDER CONDITION 1 OF COH IDM TABLE 7.3, THE SAME TYPE OF D2241 SDR 26 PVC PIPE OR C-900 GREEN DR-18 PVC GREEN PRESSURED TO BE UTILIZING IN-BETWEEN TWO SS MH'S. OR TO UTILIZE A DI TRANSITION ADAPTER FOR THE CONNECTING OF ASTM D-3034 PVC GRAVITY PIPE TO DI-OD AWWA C-900 PVC PIPE CENTERED AT WL WHEN CONNECTING TWO DIFFERENT TYPES OF PVC PIPES FOR SEWER CONSTRUCTION.
6. AWWA C-900 DR-18 PVC PIPE USES EITHER AWWA C900 DR-18 PVC FITTINGS OR DIP FITTINGS.
7. ALL SANITARY SEWER LINES UNDER PROPOSED OR FUTURE PAVEMENT AND TO A POINT ONE (1) FOOT BACK OF ALL PROPOSED OR FUTURE CURBS SHALL HAVE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBERS 02317-01, 02317-02, OR 02317-03 AS APPLICABLE, WITH 1 ½ SACK CEMENT/CY STABILIZED SAND BACKFILL UP TO THE BOTTOM OF THE PAVEMENT SUBGRADE. 100 PSI PERFORMANCE RESULTS ARE STILL REQUIRED.
8. ALL SANITARY SEWERS CROSSING WATER LINES WITH A CLEARANCE BETWEEN 12 INCHES AND 9 FEET SHALL HAVE A MINIMUM OF ONE 18' JOINT OF 150 PSI DUCTILE IRON OR (GREEN) C900 PVC PIPE MEETING ASTM SPECIFICATION D2241 CENTERED ON WATER LINE. WHEN WATER LINE IS BELOW SANITARY SEWER, PROVIDE MINIMUM 2 FOOT SEPARATION.
9. CONTRACTOR SHALL PROVIDE A MINIMUM HORIZONTAL CLEARANCE OF 9' FEET BETWEEN WATER LINES AND SANITARY SEWER MANHOLES AND LINES.
10. SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3" - 6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER TO DRAIN AWAY FROM MANHOLE RIM.

11. IN WET STABLE TRENCH AREAS USE BEDDING PER CITY OF HOUSTON STANDARD DETAILS DRAWING NUMBER 02317-02.
12. DEFLECTION TEST: DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE AND SEMI-RIGID SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED AS PER 30 TAC 217.57 LATEST AMENDMENT AND WITHOUT MECHANICAL PULLING DEVICES. NO BALL-TYPE MANDREL IS ALLOWED.
13. INFILTRATION, EXFILTRATION OR LOW-PRESSURE AIR TEST: EITHER OF THE FOLLOWING TESTS SHALL BE PERFORMED AS PER TAC, TITLE 30 217.57 WITHIN THE SPECIFIED TOLERANCES ON ALL GRAVITY SEWERS.
 - A. INFILTRATION OR EXFILTRATION TEST: TOTAL LEAKAGE AS DETERMINED BY A HYDROSTATIC HEAD TEST SHALL NOT EXCEED 50 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER 24 HOURS AT A MINIMUM TEST HEAD OF TWO (2) FEET.
 - B. LOW-PRESSURE AIR TEST: PERFORM TEST ACCORDING TO UNI-B-6-90 OR OTHER APPROPRIATE PROCEDURES. FOR SECTIONS OF PIPE LESS THAN 36" (INCH) AVERAGE INSIDE DIAMETER, THE MINIMUM ALLOWABLE TIME FOR PRESSURE DROP FROM 3.5 P.S.I.G. TO 2.5 P.S.I.G. SHALL BE AS FOLLOWS:
 - 6" 340 SECONDS OR 0.855(L) FOR TEST LENGTHS GREATER THAN 398'
 - 8" 454 SECONDS OR 1.520(L) FOR TEST LENGTHS GREATER THAN 298'
 - 10" 567 SECONDS OR 2.374(L) FOR TEST LENGTHS GREATER THAN 239'
 - 12" 680 SECONDS OR 3.419(L) FOR TEST LENGTHS GREATER THAN 199'
 - 15" 850 SECONDS OR 5.342(L) FOR TEST LENGTHS GREATER THAN 159'
 - 18" 1020 SECONDS OR 7.693(L) FOR TEST LENGTHS GREATER THAN 133'
 WHERE L = LENGTH OF LINE OF SAME PIPE SIZE IN FEET.
14. "SAN. S. E." INDICATES "SANITARY SEWER EASEMENT"
15. FOR SANITARY MANHOLE (MH) RIMS SET INSIDE OF OR @ CURB & GUTTER PAVEMENT AND/OR BELOW T.C., MH RIMS WILL BE SET FLUSHED WITH AN ABUTTING PAVED SURFACE. THE (VALCUN, NEENAH OR EQUAL) HEAVY DUTY BOLTED SOLID MH COVER SHALL BE PROPERLY (AND SECURELY) ATTACHED AND SEALED TO ITS COMPATIBLE GASKETED FRAME BY USING BOTH A NEOPRENE GASKET AND (AT LEAST) 4 COUNTER-SUNK HEX-HEAD COARSE THREADED ½"-13 UNC STAINLESS STEEL BOLTS. THE HEAVY DUTY FRAME MH COVER SHALL BE SOLID (NO AIR HOLES). SAID FRAME SHALL BE BOTH EMBEDDED INTO THE MH'S TOP ALSO SECURELY ANCHORED TO THE UNDERLYING MH STRUCTURE WITH EITHER SECURELY ATTACHED EMBEDDED ANCHOR BOLTS OR THE CONCRETE MH'S EXPOSED REBARS WELDED TO THE FRAME OR OTHER EQUALLY SECURED METHODS TO PREVENT MH COVER/FRAME BLOW-OFFS/EJECTIONS

LIFT STATION NOTES

1. THIS LIFT STATION AND/OR FORCE MAIN MUST BE CONSTRUCTED IN ACCORDANCE WITH 30 TEXAS ADMINISTRATIVE CODE (TAC) §213.5(C), THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) EDWARDS AQUIFER RULES, AND ANY LOCAL GOVERNMENT STANDARD SPECIFICATIONS.
2. ANY MODIFICATION TO THE ACTIVITIES DESCRIBED IN THE REFERENCED LIFT STATION/FORCE MAIN (LSFM) SYSTEM APPLICATION FOLLOWING THE DATE OF APPROVAL MAY REQUIRE THE SUBMITTAL OF A LSFM SYSTEM APPLICATION TO MODIFY THIS APPROVAL, INCLUDING THE PAYMENT OF APPROPRIATE FEES AND ALL INFORMATION NECESSARY FOR ITS REVIEW AND APPROVAL.
3. A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE PRESIDING TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
 - 3.1. THE NAME OF THE APPROVED PROJECT;
 - 3.2. THE ACTIVITY START DATE; AND
 - 3.3. THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
4. UPON COMPLETION OF ANY LIFT STATION EXCAVATION, A GEOLOGIST MUST CERTIFY THAT THE EXCAVATION HAS BEEN INSPECTED FOR THE PRESENCE OF SENSITIVE FEATURES. THE CERTIFICATION MUST BE SIGNED, SEALED, AND DATED BY THE GEOLOGIST PREPARING THE CERTIFICATION. CERTIFICATION THAT THE EXCAVATION HAS BEEN INSPECTED MUST BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE.
 - 4.1. F SENSITIVE FEATURE(S) ARE IDENTIFIED, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY AND MAY NOT PROCEED UNTIL THE EXECUTIVE DIRECTOR HAS REVIEWED AND APPROVED THE METHODS PROPOSED TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY FROM THE LIFT STATION.
 - 4.2. CONSTRUCTION MAY CONTINUE IF THE GEOLOGIST CERTIFIES THAT NO SENSITIVE FEATURE OR FEATURES WERE PRESENT.

<p align="center">NOTICE: FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811</p>	
<p align="center">VERIFICATION OF PRIVATE UTILITY LINES</p>	
<p>Date _____</p>	
<p>CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.</p> <p align="right">Signature valid for six months.</p>	
<p>Date _____</p>	
<p>CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities – not to be used for conflict verification)</p> <p align="right">Signature valid for six months.</p>	
<p>Date _____</p>	
<p>Approved for AT&T underground conduit facilities only. Signature valid for one year.</p>	
<p>TRILOGY ENGINEERING SERVICES 650 N. SAM HOUSTON PARKWAY E., SUITE 300 HOUSTON, TEXAS 77054 PH: 877.463.1699 TX FIRM NO: 17715</p>	 <p>07/01/2028</p>
<p>VILLA CAPRI INFRASTRUCTURE IMPROVEMENT GENERAL NOTES</p>	
<p>NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES</p>	
<p>CITY OF PRAIRIE VIEW</p>	
<p>WATER _____</p> <p>WASTE WATER _____</p> <p>STORM WATER _____</p> <p>TRAFFIC SIGNAL _____</p>	<p>STORM WATER QUALITY _____</p> <p>FACILITIES _____</p> <p>TRAFFIC & TRANSPORTATION/ STREET & BRIDGE _____</p>
<p>FILE NO _____</p>	<p>HORIZ: _____</p> <p>VERT: _____</p>
<p>SHEET NO 02 OF 04</p>	<p>DRAWING SCALE _____</p>
<p>FOR CITY OF PRAIRIE VIEW USE ONLY</p>	



NOTICE:
 FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

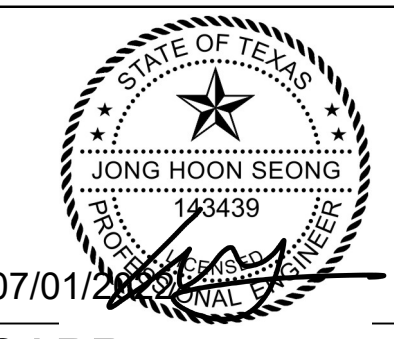
VERIFICATION OF PRIVATE UTILITY LINES

Date _____
 CenterPoint Energy natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.
 Signature valid for six months.

Date _____
 CenterPoint Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities - not to be used for conflict verification)
 Signature valid for six months.

Date _____
 Approved for AT&T underground conduit facilities only.
 Signature valid for one year.

TRILogy ENGINEERING SERVICES
 650 N. SAM HOUSTON PARKWAY E., SUITE 300
 HOUSTON, TEXAS 77054
 PH: 877.463.1699
 TX FIRM NO: 17715



Date 07/01/2018
 Approved for AT&T underground conduit facilities only.
 Signature valid for one year.

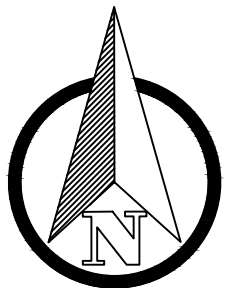
**VILLA CAPRI
 MARIE ANTIONETTE
 SEWAGE LIFT PUMP
 SITE PLAN**

NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF PRAIRIE VIEW

_____ STORM WATER QUALITY
 _____ WASTE WATER FACILITIES
 _____ STORM WATER TRAFFIC & TRANSPORTATION/ STREET & BRIDGE
 _____ TRAFFIC SIGNAL

FILE NO _____ HORIZ: _____
 SHEET NO 03 OF 04 VERT: _____
 1" = 100'
 FOR CITY OF PRAIRIE VIEW USE ONLY



MMDDYY/BRIEF DESCRIPTION XXX	REVISION	APP
MMDDYY/BRIEF DESCRIPTION XXX		
MMDDYY/BRIEF DESCRIPTION XXX		
NO. DATE		

Key Notes		
Mark	Qty	Description
1	2	4" SUBMERSIBLE PUMP
2	2	4" BASE ELBOWS
3	2	SS STEEL CHAINS
4	1	DUPLEX CONTROL PANEL 4x W/GENERATOR RECEPTACLE
5	4	FLOAT SWITCH
6	1	SS CABLE BRACKET
7	1	72" DIA x 10' DEEP CONCRETE WET WELL
8	1	6" THK FLAT CONCRETE TOP
9	1	36"x 48" DOUBLE LEAF ALUMINUM HATCHWAY
10	2	SAFETY NETS
11	1	4" GALVANIZED VENT
12	2	4" FL x PE DUCTILE IRON PIPE
13	2	4" di 90° ELBOW FL
14	2	SS UPPER GUIDE BRACKETS
15	2	4" SWING CHECK VALVE
16	3	4" PLUG VALVE
17	2	36" x 36" DOUBLE LEAF ALUMINUM HATCHWAY
18	4	SS GUIDE RAILS
19	2	3" CONDUIT
20	-	REBAR AS REQ'D
21	2	LIFT OUT ASSEMBLY
22	1	5'-0" x 5'-0" x 4'-6" DEEP PRECAST CONCRETE VALVE VAULT
23	1	6" THK VALVE VAULT LID
24	3	RESILENT RUBBER BOOT
25	2	FLANGE COUPLING ADAPTER
26	1	4" CAMLOCK w/ DUST COVER
27	1	4" BACKWATER VALVE
28	1	4" VALVE VAULT DRAIN
29	-	4" DI PIPE
30	-	MJ x MJ CONNECTION
31	1	12"x 12"x 3" DEEP SUMP w/ CAST IRON GRATE
32	2	4" DI 90° ELL
33	1	4" DI CROSS
34	-	ALL JOINTS MADE WATER-TIGHT w/ PLASTIC FLEXIBLE GASKET
35	1	NAMEPLATE INDICATING MFG: DETAILS
36	1	3" BLIND FLANGE
37	-	HDPE INTERIOR LINER (PLANT APPLIED)

NOTICE:
 FOR YOUR SAFETY, YOU ARE REQUIRED BY TEXAS LAW TO CALL 811 AT LEAST 48 HOURS BEFORE YOU DIG SO THAT UNDERGROUND LINES CAN BE MARKED. THIS SIGNATURE DOES NOT FULFILL YOUR OBLIGATION TO CALL 811

VERIFICATION OF PRIVATE UTILITY LINES

Date _____
 Belville Butane Company natural gas utilities shown. (Gas service lines are not shown). This signature not be used for conflict verification.
 Signature valid for six months.

Date _____
 San Bernard Energy/UNDERGROUND Electrical Facilities Verification ONLY. (This signature verifies existing underground facilities - not to be used for conflict verification)
 Signature valid for six months.

Approved for AT&T underground conduit facilities only. Signature valid for one year.

TRILOGY ENGINEERING
 SERVICES
 650 N. Sam Houston
 Parkway E, Suite 300
 Houston, Texas 77060
 TX Firm No - 17715



07/01/2022

**VILLA CAPRI
 MARIE ANTIONETTE
 SEWAGE LIFT PUMP DETAILS**

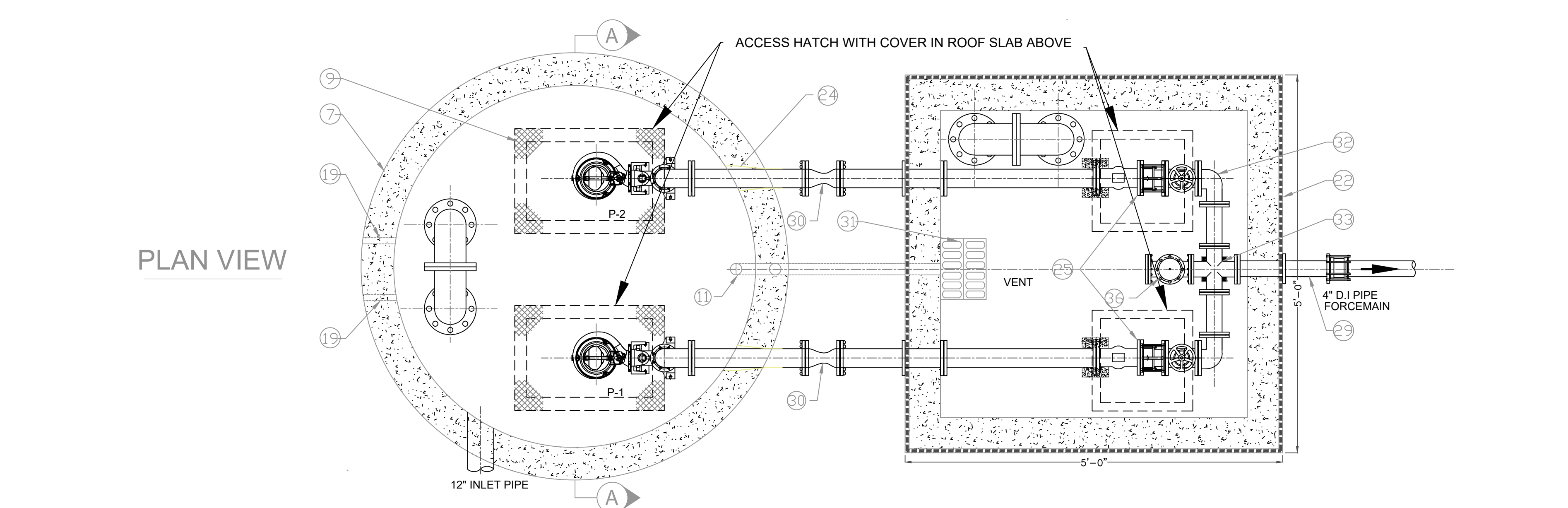
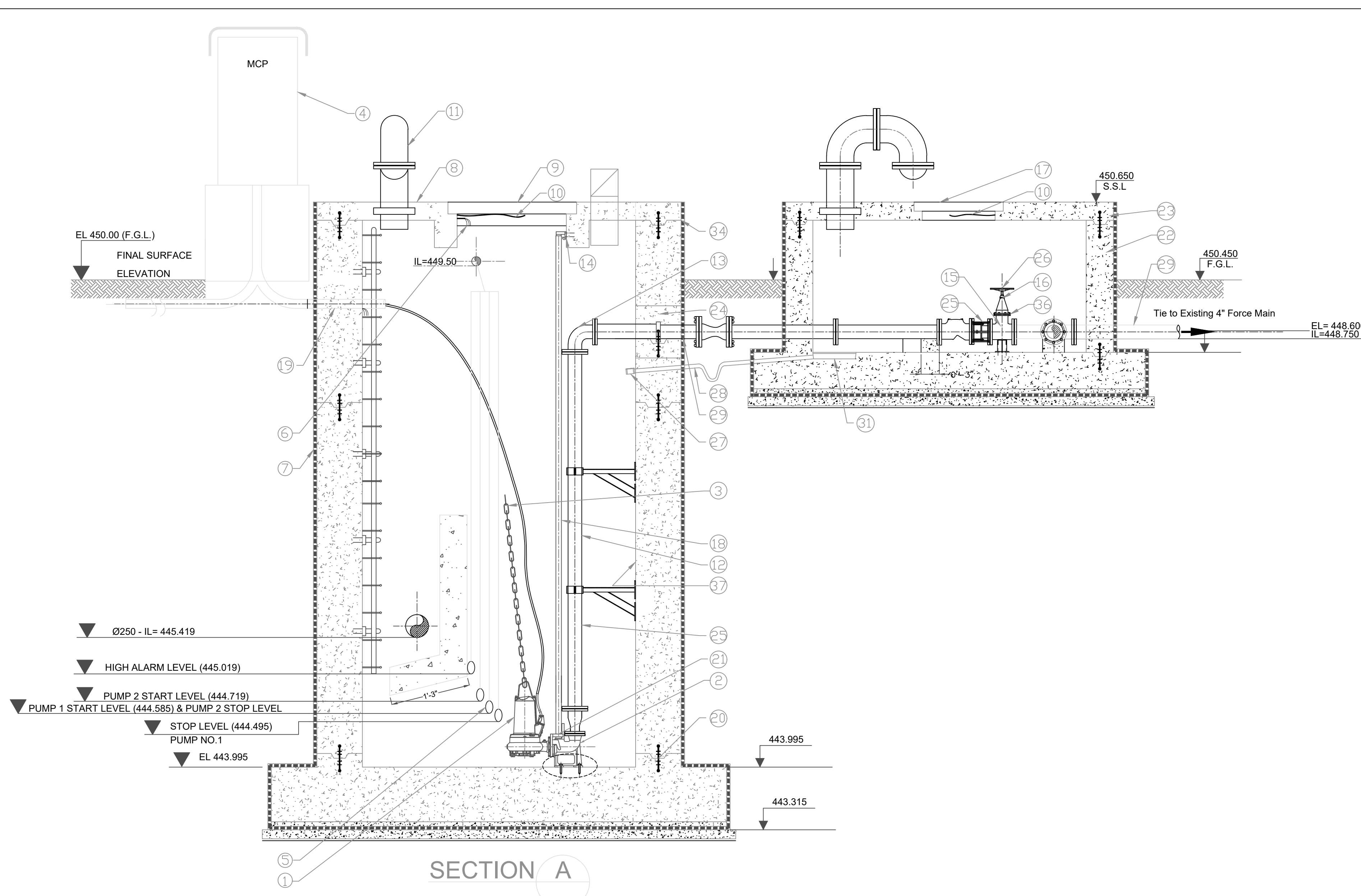
NOTE: CITY SIGNATURES VALID FOR ONE YEAR ONLY AFTER DATE OF SIGNATURES

CITY OF PRAIRIE VIEW

WATER _____ STORM WATER QUALITY _____
 WASTE WATER _____ FACILITIES _____
 STORM WATER _____ TRAFFIC & TRANSPORTATION/
 STREET & BRIDGE _____

HORIZ: _____
 VERT: _____

SHEET NO. 04 OF 04 **DRAWING SCALE**
 FOR CITY OF PRAIRIE USE ONLY



PLAN VIEW

SECTION A