Project Manual
For
CITY OF SUNSET VALLEY
VALLEY PARK
EROSION CONTROL IMPROVEMENTS
Sunset Valley, Texas

Prepared For:
CITY OF SUNSET VALLEY
3205 JONES ROAD
SUNSET VALLEY, TEXAS 78745

Prepared By:
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Texas Registered Engineering Firm F-10523

December 2019
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END
Following is a summary of information for this Project. Bidder is cautioned to refer to other sections of the Project Manual, Drawings and Addenda (Bid Documents) for further details.

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

City of Sunset Valley – Valley Park Erosion Control Improvements

Located at: 31 Reese Drive, City of Sunset Valley, Texas

The Work consists of the stabilization of the Williamson Creek bank behind existing gabion structures including embankment on the eroded stream bank and stabilization with new gabion structures, rock and erosion control blankets as indicated on the plans.

Bid Documents may be obtained at City of Sunset Valley, City Hall, 3205 Jones Road, Sunset Valley, Texas 78745. Copies will be available in CD format at no cost.

At the time Bid Documents are obtained, Bidder must provide a working e-mail address, so that they will receive any addenda or clarification issued by the Owner.

Sealed Bids will be received at the City of Sunset Valley, Public Works Department, 3205 Jones Road, Sunset Valley, Texas 78745 and then publicly opened and read aloud in the Conference Room.

ALL BIDS ARE DUE PRIOR TO (Sunset Valley time) 1:45 PM, January 14, 2020.

BIDS WILL BE OPENED AT (Sunset Valley time) 2:00 PM, January 14, 2020.

ALL BIDS AND COMPLIANCE PLANS NOT RECEIVED PRIOR TO THE DATE AND TIME SET FORTH ABOVE WILL NOT BE ACCEPTED FOR CONSIDERATION. The time clock in City Hall is the time of record and is verified with www.time.gov, the official U.S. time.

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

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

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

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

Contract Time is of the essence and all each crack sealing event shall be substantially completed within 14 Calendar Days after date specified in the Notice to Proceed, in accordance with the Bid Form, Section 00300L. Liquidated damages are $250.00 per Calendar Day for failure to finally complete the work, in accordance with the Bid Form, Section 00300U.

OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bid).
A mandatory Pre-Bid Conference will be held on January 07, 2020 at 2:00 PM (Sunset Valley time) in the conference room located at City of Sunset Valley, Public Works Department, 3205 Jones Road, Sunset Valley, Texas 78745. Attendance is mandatory unless otherwise stated. Bidders must attend any mandatory Pre-Bid Conference and are encouraged to attend any non-mandatory Pre-Bid Conference to ensure their understanding of Owner’s bidding and contracting requirements. If the Pre-Bid Conference is mandatory the Bidder must arrive and sign-in within fifteen (15) minutes of the scheduled start time of the meeting, otherwise the Bidder will not be allowed to submit a Bid for the project.

The persons listed below may be contacted for information regarding the Invitation for Bid. If the Bidder contacts any other City employee, including Council Members and members of Boards and Commissions, the Bidder may be disqualified.

AUTHORIZED CONTACT PERSONS

PROJECT MANAGER: Carolyn Meredith telephone (512) 891-9103
   Email: cmeredith@sunsetvalley.org

PROJECT ENGINEER: Greg Ulcak telephone (512) 992-0118
   Email: gulcak@civlndgrp.com
1. Preparation of Bid

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

b. Pre-Bid Conference. Unless otherwise notified, Bidders must attend the Pre-Bid Conference to ensure their understanding of OWNER’s bidding and contracting requirements.

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

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

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

f. Professional Services. Bidders must secure any required professional services that are defined as professional services under the Professional Services Procurement Act, Chapter 2254 of the Texas Government Code (for example: registered professional land surveyors and professional engineers) using the qualifications based selection process prescribed by that chapter. (Note: It is a violation of State Law to solicit Bids for professional services.)

g. Further Information. Prospective Bidders desiring further information or interpretation of Project Manual or Drawings must make a written request for such information to OWNER addressed to the Authorized Contact Person listed in Section 00020 no later than seven Working Days before Bid opening. Interpretation of Project Manual or Drawings will be made by Addendum only and a copy of each Addendum will be provided to each person to whom a set of Bid Documents has been furnished. Any verbal communications will not be binding on the OWNER.

h. Anti-Lobbying and Procurement. The City of Sunset Valley prohibits lobbying activities or representations by the Bidder between the date that the Invitation for Bid (IFB) is issued and the date of contract execution.

(1) Definitions

(A) “Agent” means a person authorized by a bidder to act for or in place of bidder, including a person acting at the request of bidder, a person acting with the knowledge
and consent of a bidder, or a person acting with any arrangement, coordination, or direction between the person and the bidder.

(B) "Authorized Contact Person" means the Project Manager listed in Section 00020, IFB, or other persons specifically identified in the IFB as the contact regarding the solicitation, or the authorized contact person’s designee during the course of the no-contact period.

(C) "City Employee" means a person employed by the City.

(D) "No-Contact Period" means the period of time from the date the IFB is issued until a contract is executed. If the City withdraws the IFB or rejects all bids with the stated intention to reissue the same or a similar IFB for the same or similar project, the no-contact period continues during the time period between the withdrawal and reissue.

(E) "Response" means a bid.

(F) "Respondent" means a bidder. The term "respondent" also includes:

(i) an owner, board member, officer, employee, contractor, subsidiary, joint enterprise, partnership, agent, lobbyist, or other representative of a bidder;

(ii) a person or representative of a person that is involved in a joint venture with the bidder, or a subcontractor in connection with the bidder's bid; and

(iii) a bidder who has withdrawn a bid or who has had a bid rejected or disqualified by the City.

(G) "Representation" means a communication related to a bid to a council member, official, employee, or City representative that is intended to or that is reasonably likely to:

(i) provide information about the bid;

(ii) advance the interests of the bidder;

(iii) discredit the bid of another bidder;

(iv) encourage the City to withdraw the IFB;

(v) encourage the City to reject all of the bids;

(vi) convey a complaint about a particular bid; or

(vii) directly or indirectly ask, influence, or persuade any City official, City employee, or body to favor or oppose, recommend or not recommend, vote for or against, consider or not consider, or take action or refrain from taking action on any vote, decision, or agenda item regarding the solicitation.

(H) "Solicitation" means an opportunity to compete to conduct business with the City that requires City Council approval.

(I) "City" means Owner.

(2) Restriction on Contacts.

(A) During a no-contact period, a bidder shall make a representation only through the authorized contact person.
(B) During the no-contact period, a bidder may not make a representation to a City official or to a City employee other than to the authorized contact person. This prohibition also applies to a vendor that makes a representation and then becomes a bidder.

(C) The prohibition of a representation during the no-contact period applies to a representation initiated by a bidder, and to a representation made in response to a communication initiated by a City official or a City employee other than the authorized contact person.

(D) If the City withdraws an IFB or rejects all bids with a stated intention to reissue the same or similar IFB for the same or similar project, the no-contact period shall expire after the ninetieth day after the date the IFB is withdrawn or all bids are rejected if the IFB has not been reissued during the ninety day period.

(E) The no-contact period shall expire when the first of the following occurs: contract is executed or solicitation is cancelled.

(F) The Public Works Director or City Administrator may allow bidders to make representations to city employees or city representatives in addition to the authorized contact person for a solicitation that the Public Works Director or City Administrator finds must be conducted in an expedited manner; an expedited solicitation is one conducted for reasons of health or safety under the shortest schedule possible with no extensions. The Public Works Director or City Administrator’s finding and additional city employees or city representatives who may be contacted must be included in the solicitation documents.

(G) Representations to an independent contractor hired by the City to conduct or assist with a solicitation will be treated as representations to a City employee.

(H) A current employee, director, officer, or member of a bidder, or a person related within the first degree of consanguinity or affinity to a current employee, director, officer or member of a bidder, is presumed to be an agent of the bidder for purposes of making a representation. This presumption is rebuttable by a preponderance of the evidence as determined by the Public Works Director or City Administrator.

(I) A bidder’s representative is a person or entity acting on a bidder’s behalf with the bidder’s request and consent. For example, a bidder may email their membership list and ask members to contact council members on the bidder’s behalf. The members are then acting per bidder’s request and with their consent, and the members have become bidder representatives.

(3) Permitted Representations

(A) If City seeks additional information from bidder, the bidder shall submit the representation in writing only to the authorized contact person. The authorized contact person will then distribute the written representation in accordance with the terms of the IFB. A bidder cannot amend or add information to a bid after the bid deadline.

(B) If bidder wishes to send a complaint to the City, the bidder shall submit the complaint in writing only to the authorized contact person. The authorized contact person will then distribute a complaint regarding the process to members of the city council or Public Works Director or City Administrator,
and to all bidders on the IFB. However, the Public Works Director or City Administrator shall not permit distribution of any complaint that promotes or disparages the qualifications of a bidder, or that amends or adds information to a bid. A determination of what constitutes promoting or disparaging the qualifications of a bidder or constitutes amending or adding information is at the Public Works Director or City Administrator’s sole discretion. Bid protests are not subject to this subsection. Documents related to a bid protest may not be forwarded to council under this subsection.

(C) If a bidder submits a written inquiry regarding an IFB, the authorized contact person will provide a written answer and distribute both the inquiry and answer to all bidders on the IFB.

(D) If a bidder does not receive a response from the authorized contact person, the bidder may contact the Public Works Director or City Administrator as appropriate.

(E) A bidder may ask a purely procedural question, for example a question regarding the time or location of an event, or where information may be obtained, of a City employee other than the authorized contact person. This provision does not permit a bidder to make suggestions or complaints about the contract process that constitute a representation to a City employee other than the authorized contact person. Notwithstanding this provision, a bidder may not ask a procedural question of a councilmember, a councilmember’s aide, or of a City board member except in a meeting held under the Texas Government Code, Chapter 551 (Open Meetings Act).

(F) regarding the solicitation is permitted between or among City officials or City employees acting in their official capacity.

(4) Contract Voidable. If a contract is awarded to a bidder who has violated these Anti-Lobbying & Procurement provisions, the contract is voidable by the Owner.

2. Estimates of Quantities (Unit Price Contracts Only)

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

3. Drawings, Project Manual and Site (s) of Work

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

All Bids shall be accompanied by a Bid guaranty in an amount of not less than five percent (5%) of the total Bid. If the total Bid amount is $100,000 or less, Bidder has the option of providing a cashier's or certified check, made payable to City of Sunset Valley accompanied by a letter from a surety company indicating that Bidder can be bonded for the amount of the Project, or a Bid bond with Power of Attorney attached, issued by a solvent surety authorized under laws of the State of Texas and acceptable to OWNER. If the total Bid amount exceeds $100,000, the only acceptable Bid guaranty will be a Bid bond with Power of Attorney attached, issued by a solvent surety authorized under laws of the State of Texas and acceptable to OWNER.

The Bid guaranty accompanying the Bid of the three (3) apparent low Bidders will be retained until Contract is awarded and successful Bidder executes Contract and furnishes required bonds and insurance, after which Bid guaranty will be returned to the Bidders. All other Bid guaranties will be returned after Bid certification. In the event that the Bidder to whom the Contract is awarded fails to timely execute the Contract, the Bidder agrees that the OWNER in its discretion may rescind the initial award and award the Contract to the next lowest responsible Bidder.

5. Performance and Payment Bonds

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

6. Consideration of Bid Amount

For purpose of award, after Bids are opened, read aloud, reviewed, and certified, the total amount of the Bid, including accepted Bid alternates, will be considered the amount of the Bid. Upon request, certified Bid tabulations will be made available to the public. OWNER reserves the right to reject any or all Bids and to waive any minor informality in any Bid or solicitation procedure (a minor informality is one that does not affect the competitiveness of the Bids).

7. Submission of Bid

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

(a) One copy of Bid form (Section 00300L or 00300U) completed and signed.
(b) Acknowledgment of receipt of Addenda issued in spaces provided in Bid form.
(c) Required Bid guaranty.
(d) Copy of statement of legal entity status, as applicable, including but not limited to, as applicable, Statement of Sole Proprietorship, Articles of Partnership or Incorporation and resolution, or corporate board minutes,
empowering signatory to bind Bidder, attested to by an officer of Bidder. The required information is set forth in Section 00100, Paragraph 15.

(e) Unless provided to the contrary in Section 00820 (Modifications to Bidding Requirements and Contract Forms), one copy of Attachments A, B, C, and D and any other specifically designated Attachments if the Statement of Bidder’s Experience (Section 00400) is required to be submitted as part of the Bid, completed and signed.

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

(g) One copy of the Affidavit - Prohibited Activities (Section 00440), completed and signed.

(h) One copy of the Nonresident Bidder Provisions (Section 00475), completed and signed.

(i) One copy of the Nondiscrimination Certificate (Section 00630), completed and signed.

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

(k) Required information indicated in Drawings or Project Manual.

Bid shall include all specified items in this section and be placed in envelopes furnished by OWNER, or other appropriate packaging, accompanied by and attached to the OWNER furnished envelopes, sealed and clearly identified on outside as a Bid to OWNER, with Bidder’s name and address, and project name. Failure to submit Bid appropriately may subject Bidder to disqualification. Bid may be mailed or delivered (in person or by Federal Express, Express Mail or other delivery service) to:

City of Sunset Valley  
3205 Jones Road,  
Bldg. A  
Sunset Valley, Texas 78745

When sent by mail, Federal Express, Express Mail, or other delivery service, sealed Bid (marked as indicated above) shall be enclosed in an additional envelope, or other appropriate packaging, clearly identified on outside as a Bid to OWNER with Bidder’s name and address, Project name, and Bid date and time. It is the sole responsibility of the Bidder to ensure timely delivery of Bid. OWNER 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 the Bidder. (See Section 00820, Modifications to Bidding Requirements and Contract Forms.)

In submitting its Bid, Bidder certifies that it has not lobbied the City or its officials, managers, employees, consultants, or contractors in such a manner as to influence or to attempt to influence the bidding process. In the event it reasonably appears that the Bidder influenced or attempted to influence the bidding process, the City may, in its discretion, reject the Bid.
8. Withdrawal of Bid
A Bid may be withdrawn by a Bidder, provided an authorized individual of the Bidder submits a written request to withdraw the Bid prior to the time set for opening the Bids.

9. Rejection of Bids
A. The following **will** be cause to reject a Bid:
   
   (1) Bids which are not signed by an individual empowered to bind the Bidder.
   
   (2) Bids which are not accompanied by acceptable Bid guaranty, with Power of Attorney attached, or a letter certifying the Bidder’s ability to be bonded, from a surety company, in accordance with Paragraph 4 above.
   
   (3) More than one Bid for same Work from an individual, firm, partnership or corporation.
   
   (4) Evidence of collusion among Bidders.
   
   (5) Sworn testimony or discovery in pending litigation with OWNER which discloses misconduct or willful refusal by contractor to comply with subject contract or instructions of OWNER.
   
   (6) Failure to have an authorized agent of the Bidder attend the mandatory Pre-Bid Conference, if applicable.
   
   (7) Bids received from a Bidder who has been debarred or suspended by OWNER’s Purchasing Officer.
   
   (8) Bids received from a Bidder when Bidder or principals are currently debarred or suspended by Federal, State or City governmental agencies. (Applicable for Bid amounts equal to or in excess of $25,000.00).
   
   (9) Failure to submit a signed copy of the Title VI Assurances Appendix A (Section 00631)
   
   (10) Failure to submit Section 00810A Exhibit A Federal Provisions pages 1-9 with Bidder’s Bid, if applicable.

B. The following **may** be cause to reject a Bid:

   (1) Poor performance in execution of work under a previous City of Sunset Valley contract.
   
   (2) Failure to achieve reasonable progress on an existing City of Sunset Valley contract.
   
   (3) Default on previous contracts or failure to execute Contract after award.
   
   (4) Evidence of failure to pay Subcontractors, Suppliers or employees in accordance with Contract requirements.
   
   (5) Bids containing omissions, alterations of form, additions, qualifications or conditions not called for by OWNER, or incomplete Bids may be rejected. In any case of ambiguity or lack of clarity in the Bid, OWNER reserves right to determine most advantageous Bid or to reject the Bid.
(6) Failure to acknowledge receipt of Addenda.

(7) Failure to submit any of the items specified above in paragraph 7, “Submission of Bid”, which are not cause for mandatory rejection in paragraph 9, “Rejection of Bids,” section A.

(8) Failure to identify a dollar amount (price) of a unit price(s) in the 00300U

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

(10) Failure to timely execute Contract after award.

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

(12) Safety record as set forth in Section 00410, Statement of Bidder’s Safety Experience.

(13) Failure of Bidder to demonstrate, through submission of Attachments A, B, C, and D, the minimum experience required as specified in Section 00400 if that Section is included in the bidding documents.

(14) Evidence of Bidder’s lack of sufficient resources, workforce, equipment or supervision, if required by inclusion of appropriate attachments in Section 00400.

(15) Evidence of poor performance on previous Projects as documented in Owner’s project performance evaluations.

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

(17) Failure of Bidder to complete, sign and submit Section 00440, Affidavit - Prohibited Activities.

10. Protest Procedures:

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

Prior to Bid opening: If you are a prospective Bidder and you become aware of the facts regarding what you believe is a deficiency in the solicitation process before the Bid is opened, you must notify OWNER in writing of the alleged deficiency before that date, giving OWNER an opportunity to resolve the situation prior to the Bid opening.

After Bid opening: If you submit a Bid to OWNER and (1) you have been found non-responsive, or (2) you believe that there has been a deficiency in the solicitation process or the award, you have the opportunity to protest the solicitation process or the recommended award as follows:
1. You must file written notice of your intent to protest within four (4) calendar days of the date that you know or should have known of the facts relating to the protest. If you do not file a written notice of intent within this time, you have waived all rights to protest the solicitation process or the award.

2. You must file your written protest within fourteen (14) calendar days of the date that you know or should have known of the facts relating to the protest unless you know of the facts before the Bid has been opened. If you know of the facts before that date, you must notify OWNER as stated above.

3. You must submit your protest in writing and must include the following information:
   
   a. your name, address, telephone, and email address;
   b. a detailed statement of the factual grounds for the protest, including copies of any relevant documents.

4. Your protest must be concise and presented logically and factually to help with OWNER’s review.

5. When OWNER receives a timely written protest, the City Administrator will determine whether the grounds for your protest are sufficient. If the City Administrator decides that the grounds are sufficient, the City Administrator will schedule a protest hearing, usually within five (5) working days. If the City Administrator determines that your grounds are insufficient, you will be notified of that decision in writing.

6. The protest hearing is informal and is not subject to the Open Meetings Act. The purpose of the hearing is to give you a chance to present your case, it is not an adversarial proceeding. Those who may attend from OWNER are: City Administrator, the City of Sunset Valley Attorney and other appropriate City staff. You may bring a representative or anyone else that will present information to support the factual grounds for your protest with you to the hearing.

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

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

9. When a protest is filed, OWNER usually will not make an award until a decision on the protest is made. However, OWNER will not delay an award if the City Administrator determines that:
   
   a. OWNER urgently requires the supplies or services to be purchased, or
   b. Failure to make an award promptly will unduly delay delivery or performance.

   In those instances, the City Administrator will notify you and make every effort to resolve your protest before the award.

The protest or notice of intent and the protest shall be submitted in writing to the following address:

City of Sunset Valley
ATTN: City Administrator
3205 Jones Road,
Building A
Sunset Valley, Texas
78745
11. Submission of Post Bid Information

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

1. One copy of any additionally required attachments, if specified in the bidding documents, to the Bidder's Experience Record (Section 00400) completed in their entirety, including attachments, and signed.
2. Section 00410, Statement of Bidder's Safety Experience, including required attachments, completed and signed.
3. Such other information as is required to evaluate Bid or Bidder.

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

   a. Letter(s) of intent between Bidder and all subcontractor(s) and all supplier(s)
   b. Such other information as is required.

(Note: OWNER reserves the right to solely determine whether the comparable experience documentation provided by the Bidder is sufficient and relevant to the Work described in the Contract Documents for the Bidder to be considered a responsible Bidder. In addition, the Bidder acknowledges and agrees that the failure to timely provide the additional information required by this section will result in a determination that, for the purposes of this solicitation, the Bidder has not provided sufficient information for the OWNER to be able to determine that the Bidder is a responsible Bidder.)

12. Award and Execution of Contract

OWNER will process Bids expeditiously. Award of Contract will be to the lowest, responsible Bidder meeting all requirements of the Bid Documents. OWNER may not award Contract to a nonresident Bidder unless the nonresident underbids the lowest Bid submitted by a responsible resident Bidder by an amount that is not less than the amount by which a resident Bidder would be required to underbid the nonresident Bidder to obtain a comparable contract in the state in which the nonresident’s principal place of business is located.

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

Upon contract award, the selected Bidder must submit either their existing or an updated personnel policy (on letterhead) documenting conformity to the contract requirements. If the company does not submit a copy of their personnel policy incorporating the non-discrimination policy, Section 00630 of this contract will be considered the Bidder's nondiscrimination policy.

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

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

14. Signature Requirements

The Bid and any subsequent supporting Bid documents and Contract must be executed in the Bidder’s full name and legal entity status by an authorized representative of the Bidder and accompanied by sufficient documentation, which clearly indicates not only the legal name and entity status of Bidder, but also the capacity and authority of the person signing on behalf of Bidder. Accordingly, a partnership/joint venture must file its partnership/joint venture agreement, a corporation must file its articles and bylaws, a limited liability company must file its certificate of organization and article of organization and regulations, and a limited partnership must file not only limited partnership agreement and the certificate of limited partnership, but also the documentation for its general partner, and any Bidder must file a copy of any assumed name certificate, or such limited portion of such documents reasonably establishing signature authority. The following samples show the entity information and signature requirements that will apply to all Bid and contract execution documents for the type of entity indicated:

1. Individual/Sole Proprietor (sample)

   The individual/sole proprietor must sign the document in his or her personal capacity or in any assumed name capacity accompanied by a copy of any assumed name certificate.

   Name of Contractor (d/b/a, if appropriate), a sole proprietor By: __________________

   Printed Name: __________________
2. **Partnership/Joint Venture (sample)**

   A partner/joint venturer must sign the document in his or her capacity as a partner/joint venturer and in any assumed name capacity accompanied by a copy of the assumed name certificate, if any, and a copy of the partnership or joint venture agreement, as applicable, with additional documentation, if necessary, establishing the authority of the signatory individual.

   Name of Partnership/Joint Venture, a Texas Partnership/JV, as appropriate
   
   By: ______________________
   
   Printed or Typed Name: ______________________
   
   Title: ______________________ (Partner, managing partner, venturer, managing venturer, as appropriate)
   
   Authorized Representative

3. **Corporation (sample)**

   An authorized officer or agent of the corporation must sign the documents on behalf of the corporation in his or her capacity as the authorized representative of the corporation accompanied by a copy of a corporate resolution and minutes granting such authority with a certificate of an officer of the corporation as to the authority of the signatory to bind the CONTRACTOR signed and dated no more than one week before the date of execution of the document.

   Name of Contractor, Inc. or Co., a Texas corporation, as appropriate
   
   By: ______________________
   
   Printed or Typed Name: ______________________
   
   Title: ______________________ (Officer or Agent (as appropriate))
   
   Authorized Representative

4. **Limited Liability Company (sample)**

   An authorized manager or member of the LLC must sign the document in his or her capacity as a manager or member accompanied by a copy of the LLC’s certificate of organization and articles of organization and regulations evidencing such person’s signatory authority.

   Name of Contractor, L.L.C., a Texas limited liability company, as appropriate
   
   By: ______________________
   
   Printed or Typed Name: ______________________
   
   Title: ______________________, (Manager or Member (as appropriate))
   
   Authorized Representative
5. Limited Partnership (sample)

The general partner of a limited partnership must execute the documents on behalf of the limited partnership, accompanied by copy of the limited partnership agreement and the certificate of limited partnership. In addition, the signatory must sign the documents in his or her capacity as an authorized officer or agent of the corporation or member or manager of the LLC, as appropriate, accompanied by a copy of the corporate or LLC documentation stipulated above.

Name of Contractor, Ltd., a Texas limited partnership, as appropriate  By: Name of General Partner (usually a Texas corporation or an L.L.C.) By: ________
Printed or Typed Name:________________________
Title:________________________ Officer or Agent of Corporation or LLC Authorized Representative

End
The undersigned, in compliance with the Invitation for Bids for construction of the following Project: **City of Sunset Valley – Erosion Control Improvements Project** for the City of Sunset Valley, Texas, having examined the Project Manual, Drawings and Addenda, the site of the proposed Work and being familiar with all of the conditions surrounding construction of the proposed Project, having conducted all inquiries, tests and investigations deemed necessary and proper; hereby proposes to furnish all labor, permits, material, machinery, tools, supplies and equipment, and incidentals, and to perform all Work required for construction of the Project in accordance with the Project Manual, Drawings and Addenda within the time indicated for the following prices of:

Note: The Bidder will enter the line item subtotal in the “Amount” column below, which is the product of the estimated "Quantity" multiplied by the "Unit Price". Any mathematical errors will be corrected for the purpose of determining the correct Amount to be entered in the Bid Form. The Amounts, including any corrected Amounts, will then be totaled to determine the actual amount of the Bid.

<table>
<thead>
<tr>
<th>Bid Item</th>
<th>Quantity</th>
<th>Unit</th>
<th>Item Description</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>120S-V</td>
<td>15</td>
<td>CY</td>
<td>Channel Excavation – Plan Quantity</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>132-A</td>
<td>30</td>
<td>CY</td>
<td>Embankment</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>594S-A</td>
<td>16</td>
<td>CY</td>
<td>Gabions, Twisted Woven Wire</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>594S-C</td>
<td>23</td>
<td>CY</td>
<td>Revet Mattresses, Twisted Woven Wire</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>Bid Item</td>
<td>Quantity</td>
<td>Unit</td>
<td>Item Description</td>
<td>Unit Price</td>
<td>Amount</td>
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</tr>
<tr>
<td>605S-A</td>
<td>60</td>
<td>SY</td>
<td>Soil Retention Blanket</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Class 2, Type F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>609S-A</td>
<td>60</td>
<td>SY</td>
<td>Topsoil and Seedbed Preparation</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>609S-C</td>
<td>60</td>
<td>SY</td>
<td>Native Seeding</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>609S-F</td>
<td>20</td>
<td>Kgal</td>
<td>Watering</td>
<td>$________</td>
<td>$________</td>
</tr>
<tr>
<td>620S-A</td>
<td>80</td>
<td>SY</td>
<td>Filter Fabric</td>
<td>$________</td>
<td>$________</td>
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<td></td>
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<td>(For Gabions)</td>
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</tbody>
</table>

**TOTAL BID** : ........................................... $_____________________________

In the event of a mathematical error, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder. The unit prices shown above will be the unit prices used to tabulate the Bid and used in the Contract, if awarded by the City.

Optional Information on Bid Prices Submitted by Computer Printout
In lieu of handwritten unit prices in figures in ink on the Bid forms above, Bidders, at their option, may submit an original computer printout sheet bearing certification by, and signature for, the Bidding firm. The unit prices shown on acceptable printouts will be the unit prices used to tabulate the Bid and used in the Contract if awarded by the City. As a minimum, computer printouts must contain all information and in the format shown on the attached page: "Example of Bid Prices Submitted by Computer Printout" form.

If a computer printout is used, the Bidder must still execute that portion of the unit price Bid form which acknowledges the Bid Guaranty, Time of Completion, Liquidated Damages, and all addenda that may have been issued.

Bids with unit prices by computer printout may be rejected, if:

1. The computer printout does not include the required certification, set forth in the attached "Example".
2. The computer printout is not signed in the name of the firm to whom the Project Manual was issued.
3. The computer printout is non-responsive or otherwise omits required Bid items or includes items not shown on the Bid forms in the Project Manual.
4. The other required Bid documents issued by the City are not fully executed as provided above.
5. The signed Section 00300U is not returned with the signed computer printout.

If the Bid submitted by the Bidder contains both the form furnished by the City, completed according the instructions, and also a computer printout, completed according to the instructions, unit prices of only one will be considered. In this situation, the unit Bid prices shown on the computer printout will be used to determine the Bid.

**BID GUARANTY:** A Bid guaranty must be enclosed with this Bid, as required in Section 00020, in the amount of not less than five percent (5%) of the total Bid. Following the Bid opening, submitted Bids may not be withdrawn for a period of 60 Calendar Days. Award of Contract will occur within this period, unless mutually agreed between the parties. The Bid guaranty may become the property of the OWNER, or the OWNER may pursue any other action allowed by law, if:

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

**TIME OF COMPLETION:** The undersigned Bidder agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to finally complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within Thirty (30) Calendar Days. The Bidder further agrees that should the Bidder fail to finally complete the Work within the number of days indicated in the Bid or as subsequently adjusted, Bidder shall pay the liquidated damages for each consecutive day thereafter as provided below; unless the OWNER elects to pursue any other action allowed by law.

**WAIVER OF ATTORNEY FEES:** In submitting its bid, in consideration for the waiver of its right to attorney’s fees by the OWNER, the Bidder knowingly and intentionally agrees to and shall waive the right to attorney’s fees under Section 271.153 of the Texas Local Government Code in any administrative proceeding, alternative dispute resolution proceeding, or litigation arising out of or connected to any Contract awarded pursuant to this solicitation process.
LIQUIDATED DAMAGES: The Bidder understands and agrees that the timely completion of the described Work is of the essence. The Bidder and OWNER further agree that the OWNER’s actual damages for delay caused by failure to timely complete the Project are difficult, if not impossible to measure. However, with respect to the additional administrative and consultant costs to be incurred by OWNER, the reasonable estimate of such damages has been calculated and agreed to by OWNER and Bidder. Therefore, the Bidder and the OWNER agree that for each and every Calendar Day the Work or any portion thereof, remains incomplete after the Final Completion date as established by the above paragraph, "Time of Completion", payment will be due to the Owner in the amount of $100.00 per Calendar Day as liquidated damages, not as a penalty, but for delay damages to the OWNER. Such amount shall be deducted by the OWNER from any Contract payment due. In the event of a default or breach by the CONTRACTOR and demand is made upon the surety to complete the project, in accordance with the Contract Documents, the surety shall be liable for liquidated damages pursuant to the Contract Documents in the same manner as the CONTRACTOR would have been.

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

Addendum No. 1 dated _________________ Received ______________________
Addendum No. 2 dated _________________ Received ______________________
Addendum No. 3 dated _________________ Received ______________________
Addendum No. 4 dated _________________ Received ______________________
Addendum No. 5 dated _________________ Received ______________________

________________________________ _____________________________________________
Secretary, *if Bidder is a Corporation                       Bidder
_____________________________________________
(Seal)                                                               Authorized Signature
_____________________________________________
Title
_____________________________________________
Date
_____________________________________________
Address
_____________________________________________
Telephone Number        /        FAX Number
_____________________________________________
Email Address for Person Signing Bid
_____________________________________________
Email Address for Bidder’s Primary Contact Person

* Copy of Corporate Resolution and minutes with certificate of officer of Bidder as to authority of signatory to bind Bidder is to be signed and dated no earlier than one week before Bid date, and attached to this document.

EXAMPLE: BID PRICES SUBMITTED BY COMPUTER PRINTOUT
<table>
<thead>
<tr>
<th>Bid Item #</th>
<th>Bid Item Description</th>
<th>Unit</th>
<th>Qty</th>
<th>Unit Bid Price</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

**Total Bid:**

(YOUR FIRM'S NAME) certifies that the unit prices shown on this completed computer printout for all of the bid items and the alternates contained in this proposal are the unit prices intended and that its Bid will be tabulated using these unit prices and no other information from this printout. (YOUR FIRM'S NAME) acknowledges and agrees that the total bid amount shown will be read as its total bid. *In the event of a mathematical error*, the correct product, determined by using the "Unit Price" and "Quantity", and the correct sum, determined by totaling the correct line item Amounts, will prevail over the amount entered by the Bidder.

Signed: __________________________________________

Title: ____________________________________________

Date: ____________________________________________

End
Project Name: City of Sunset Valley – Valley Park Erosion Control Improvements

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

To be considered a responsive bidder, Bidder must complete and submit Attachments A, B, C, and D with its Bid in accordance with Article 7, Section 00100. The Bidder agrees that, in addition to determining the apparent low Bid, the Owner will consider the responsibility of the Bidders in awarding a Contract for this Project. In addition, the three (3) apparent low Bidders may also be required to submit Attachments E through J within three (3) days of notification from the OWNER. If none of the three (3) apparent low Bidders are deemed responsible, the OWNER may notify the next three (3) lowest apparent Bidders, who will be required to submit Attachments E through J for review, and so on, until a Contract is awarded. Any information in Attachments A through J that indicates the Bidder or a “Subcontractor” is not responsible or that might negatively impact a Bidder’s ability to complete the Work within the Contract Time and for the Contract Price may result in the Bid being rejected.

The Bidder is responsible for the accuracy and completeness of all of the information provided by the Bidder or a proposed Subcontractor in response to this Invitation for Bids.
BID SUBMITTALS
ATTACHMENT A – BIDDER’S INFORMATION
ATTACHMENT B – EXPERIENCE REQUIREMENTS (GENERAL CONTRACTOR)
ATTACHMENT C – PROJECT MANAGER AND SUPERINTENDENT EXPERIENCE
ATTACHMENT D – BIDDER’S AUTHENTICATION

POST-BID SUBMITTALS
ATTACHMENT E – EXPERIENCE REQUIREMENTS (SPECIFIC CONSTRUCTION OR TECHNICAL EXPERIENCE)
ATTACHMENT F – AVAILABLE EQUIPMENT
ATTACHMENT G – AVAILABLE WORKFORCE
ATTACHMENT H – CURRENT PROJECTS
ATTACHMENT I – COMPLETED PROJECTS
ATTACHMENT J – BIDDER’S AUTHENTICATION
ATTACHMENT A

BIDDER’S INFORMATION

(Complete and submit with the Bid)

A. **Name of Bidder:** ________________________________

B. **Bidder’s Permanent Address:** _______________________

C. **Bidder’s Phone No.:** (________) _______-___________

D. **Number of years in business under current company name:** ___

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

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

E. **Has the Bidder ever defaulted on a contract?**
   
   YES (___)  NO (___)

F. **Are there currently any pending judgments, claims, or lawsuits against the Bidder?**

   YES (___)  NO (___)

G. **Does Bidder currently have any pending claims, judgments or lawsuits against any prior client?**

   YES (___)  NO (___)

H. **Is the Bidder or its principals involved in any bankruptcy or reorganization proceedings?**

   YES (___)  NO (___)
ATTACHMENT B
EXPERIENCE REQUIREMENTS (GENERAL CONTRACTOR)
(Complete and submit with the Bid)

GENERAL CONTRACTOR EXPERIENCE
Bidder must list and describe Bidder’s (not proposed subcontractors’) construction experience as a general contractor for a minimum of three (3) successfully completed projects of comparable size, scope and complexity to the Work described in the Contract Documents. Bidders should refer to the 1.2 Description of Work section in contract document 01010 Summary of Work to determine what is reasonably comparable. Decisions on “comparability” are at the complete discretion of the OWNER.

Bidder must have completed the projects within the past five (5) years.
**PROJECT NO. 1:**

Name of Project: ________________________________

Location: ________________________________

OWNER’s Name and Address: ________________________________

OWNER’s Contact Person (Print): ________________________________

Phone/Fax No.: _______ / _______

Initial Contract Price: ________

Final Contract Price: ________________________________

Contract Start Date: _____________ (Date of Notice To Proceed)

Contract Time: __________________________ ( ) Calendar Days ( ) Working Days

Contract Substantial Completion Date: ________________________________

Actual Substantial Completion Date: ________________________________

If contract time extensions were added to the contract as a result of Bidder’s responsibilities, provide a short explanation of each.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Project Description and why it is comparable to this Contract:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
PROJECT NO. 2:
Name of Project: __________________________________________
Location: _______________________
OWNER’s Name and Address: ________________________________
OWNER’s Contact Person (Print): _____________________________
Phone/Fax No.: __________ / __________
Initial Contract Price: __________
Final Contract Price: _______________________
Contract Start Date: ____________ (Date of Notice To Proceed)
Contract Time: ________________________ ( ) Calendar Days ( ) Working Days
Contract Substantial Completion Date: ________________________
Actual Substantial Completion Date: ________________________
If contract time extensions were added to the contract as a result of Bidder’s responsibilities, provide a short explanation of each.
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
Project Description and why it is comparable to this Contract:
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
________________________________________________________________________________________
PROJECT NO. 3:
Name of Project: ________________________________
Location: ________________________________
OWNER’s Name and Address: ________________________________
OWNER’s Contact Person (Print): ________________________________
Phone/Fax No.: __________/__________
Initial Contract Price: __________
Final Contract Price: ________________________________
Contract Start Date: ____________ (Date of Notice To Proceed)
Contract Time: ________________________________ ( ) Calendar Days ( ) Working Days
Contract Substantial Completion Date: ________________________________
Actual Substantial Completion Date: ________________________________
If contract time extensions were added to the contract as a result of Bidder’s responsibilities, provide a short explanation of each.

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Project Description and why it is comparable to this Contract:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
ATTACHMENT C
PROJECT MANAGER & SUPERINTENDENT EXPERIENCE

(Complete and submit with the Bid)

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

Project Manager (name): ________________________________

Superintendent (name): ________________________________

(Insert Resumes & Experience)
ATTACHMENT D
(Complete and submit with the Bid)

AUTHENTICATION

THE STATE OF TEXAS
COUNTY OF TRAVIS

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

Bidder's full name and entity status:

__________________________________________

__________________________________________

Signature, Authorized Representative of Bidder

Title

__________________________________________, 20

Date
ATTACHMENT E

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

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

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

The Work must have been performed within the past five (5) years.

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

SPECIFIC CONSTRUCTION EXPERIENCE ITEMS REQUIRED:

ITEM 1. Creek bank stabilization projects utilizing gabion structures

The Bidder shall complete and duplicate the following specific Construction Experience Form as required to provide the requested documentation for a minimum of three (3) successfully completed projects for each of the above specific Construction Experience requirements.
CONSTRUCTION EXPERIENCE DOCUMENTATION FORM

EXPERIENCE ITEM NUMBER: __________

Project Number: __________

Does Bidder plan to self perform this work? YES (_____) NO (_____)

If “NO”, provide the following Subcontractor information:

Company Name: ____________________________________________________________
Permanent Address: ___________________________________________________________
Phone Number: ______________________________________________________________
Number of years Subcontractor has been in business under current company name: ___________

Name of Project: _____________________________________________________________
Location: _________________________________________________________________
OWNER’s Name: _____________________________________________________________
OWNER’s Address: ___________________________________________________________
OWNER’s Contact Person (Print): _______________________________________________
Phone/Fax No.: ___________ / ___________

Initial Contract Price: _____________
Final Contract Price: _________________
Contract Start Date: _________________ (Date of Notice To Proceed)
Contract Time: ______________________ ( ) Calendar Days ( ) Working Days
Contract Substantial Completion Date: ________________________________
Actual Substantial Completion Date: __________________________________________

If contract time extensions were added to the contract as a result of Bidder’s responsibilities, provide a short explanation of each.

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

Project Description and why it is comparable to the size, scope, and/or complexity for this item:

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
**ATTACHMENT F**

**AVAILABLE EQUIPMENT LIST**

(To be returned within three (3) days of notification)

Name of Bidder: ______________________________________________

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

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>OWNED OR LEASED</th>
<th>COMMITTED TO ANOTHER PROJECT?</th>
<th>AVAILABLE / RELEASE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Yes / No)</td>
<td></td>
</tr>
</tbody>
</table>

Use additional pages, as necessary
ATTACHMENT G

AVAILABLE WORKFORCE

(To be returned within three (3) days of notification)

Name of Bidder: ______________________________________________

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

Number of Anticipated Work Crews: ________

<table>
<thead>
<tr>
<th>DISCIPLINE OR CRAFT</th>
<th>NO. OF EMPLOYEES</th>
<th>COMMITTED TO ANOTHER PROJECT? (Yes / No)</th>
<th>AVAILABLE / RELEASE DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Superintendent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled Workers (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semiskilled Workers (specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Operators (list)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use additional pages, as necessary
ATTACHMENT H

CURRENT PROJECT LISTING

(To be returned within three (3) days of notification)

**Name of Bidder:** ______________________________________________

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

<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Job</td>
<td></td>
</tr>
<tr>
<td>Project Start Date</td>
<td>Estimated Completion Date</td>
</tr>
<tr>
<td>Project Contact</td>
<td></td>
</tr>
<tr>
<td>Brief Description</td>
<td></td>
</tr>
</tbody>
</table>

Use additional pages, as necessary
ATTACHMENT I

COMPLETED PROJECTS

(To be returned within three (3) days of notification)

**Name of Bidder:** ______________________________________________

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

**Calendar Year of __________**

**Name of Project:** ___________________________ **Location:** ____________

**Type of Job:** ____________________________

**Project Duration:** ____________ **Project Contact:** ____________________________

**Brief Description:** ____________________________________________________

__________________________________________________________________________

**Name of Project:** ___________________________ **Location:** ____________

**Type of Job:** ____________________________

**Project Duration:** ____________ **Project Contact:** ____________________________

**Brief Description:** ____________________________________________________

__________________________________________________________________________

**Name of Project:** ___________________________ **Location:** ____________

**Type of Job:** ____________________________

**Project Duration:** ____________ **Project Contact:** ____________________________

**Brief Description:** ____________________________________________________

__________________________________________________________________________

**Name of Project:** ___________________________ **Location:** ____________

**Type of Job:** ____________________________

**Project Duration:** ____________ **Project Contact:** ____________________________

**Brief Description:** ____________________________________________________

__________________________________________________________________________

Use additional pages as necessary to achieve a representative listing covering 5 years
ATTACHMENT J
BIDDERS AUTHENTICATION
(To be returned within three (3) days of notification)

Name of Bidder: ______________________________________________

THE STATE OF TEXAS
COUNTY OF TRAVIS

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

Bidder's full name and entity status:

______________________________
Signature, Authorized Representative of Bidder

______________________________
Title

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

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

PROJECT Name  City of Sunset Valley – Valley Park Erosion Control Improvements

PROJECT Address  31 Reese Drive, City of Sunset Valley

CONTRACTOR’S Name ________________________________

Signed by (Authorized Representative) ______________________________

Printed Name: ________________________________________________

Title _________________________________________________________

Date ______________________________________________

END
SAFETY RECORD QUESTIONNAIRE
& STATEMENT OF BIDDER’S SAFETY EXPERIENCE
(To Be Submitted Post-Bid)

Pursuant to Section 252.0435 of the Local Government Code, the Sunset Valley Council will consider the safety records of potential contractors prior to awarding bids on City contracts. The City of Sunset Valley has adopted the following written definitions and criteria for accurately determining the safety record of a Bidder prior to awarding bids on City contracts. The term “Bidder” includes the firm, corporation, partnership, or other legal entity represented by the Bidder or anyone acting for such firm, corporation, partnership or other entity submitting the bid. The definitions and criteria for determining the safety record of a Bidder are:

“Citations” include notices of violation, notices of enforcement, suspension/revocations of state or federal licenses or registrations, fines assessed pending criminal complaints, indictments, or convictions, administrative orders, draft orders, final orders, and judicial final judgments. Notice of Violations and Notice of Enforcement received from the TCEQ shall include those classified as major violations and moderate violations under the TCEQ’s regulations for documentation of Compliance History, 30 Texas Administrative Code, Chapter 60.2 (c) (1) and (2).

“Environmental Protection Agency” includes, but is not limited to the Texas Commission on Environmental Quality (TCEQ), the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Texas Department of Health, the Texas Parks and Wildlife Department, the Structural Pest Control Service, agencies of local governments responsible for enforcing environmental protection laws or regulations, and similar regulatory agencies of other states of the United States.

1. If the Bidder’s response to the following questions reveals more than two (2) cases in which final orders have been entered by the Occupational Safety and Health Review Commission (OSHRC) against the Bidder for serious violations of Occupational Safety & Health Administration (OSHA) regulations within the past five (5) years, the City will, at its discretion, determine whether to disqualify the Bidder.

2. If the Bidder’s response to the following questions reveals more than one (1) case in which Bidder has received a citation or for which final orders have been entered from an environmental protection agency for violations within the past five (5) years, the City will, at its discretion, determine whether to disqualify the Bidder.

3. If the Bidder’s response to the following questions reveals that the Bidder has been convicted of a criminal offense within the past ten (10) years or has been subject to a judgment for a negligent act or omission, which resulted in serious bodily harm or death, at its discretion, the City will determine whether to disqualify the Bidder.

4. The City may consider the responses to each question listed below separately when making a discretionary determination of whether to disqualify a Bidder and it may consider the cumulative impact of the information generated by the Bidder’s responses in making the determination.

5. The Bidder acknowledges the requirements for Safety Training (listed in Section 00700) must be met before any work commences on the project.

6. In order to consider the safety records of potential contractors prior to awarding bids on City contracts, the City requires that Bidders answer the following questions and submit them upon request:
QUESTION ONE

Has the Bidder received any Citations for violations of OSHA within the past five (5) years? □ Yes  □ No

QUESTION TWO

Has the Bidder received any Citations for violations of environmental protection laws or regulations within the past five (5) years? □ Yes  □ No

QUESTION THREE

Has the Bidder ever been convicted, within the past ten (10) years, of a criminal offense or has been subject to a judgment for a negligent act or omission, which resulted in serious bodily injury or death? □ Yes  □ No

If the Bidder has indicated "Yes" to any question above, the Bidder must provide to the City, with its bid submission, the following information:

Date of Citation or offense and location where violation or offense occurred, type of violation or offense, final disposition of violation or offense, if any, and penalty assessed.

In addition, the City will utilize the following information and in its discretion, as additional support to make any discretionary determination of whether to disqualify a Bidder. Accordingly, Bidder must answer the following questions and provide evidence that it meets minimum OSHA construction safety standards and has a lost time injury rate that does not exceed the limits established below:

1. Does the Bidder have a written construction safety program? □ Yes  □ No
2. Does the Bidder conduct regular construction site safety inspections? □ Yes  □ No
3. Does the Bidder have an active construction safety training program? □ Yes  □ No
4. Does the Bidder or affected subcontractors have competent persons in the following areas (as applicable to the scope of the current Project):
   A. Scaffolding  □ Yes  □ No  □ N/A
   B. Excavation  □ Yes  □ No  □ N/A
   C. Cranes & Hoists  □ Yes  □ No  □ N/A
   D. Electrical  □ Yes  □ No  □ N/A
   E. Fall Protection  □ Yes  □ No  □ N/A
   F. Confined Spaces  □ Yes  □ No  □ N/A
   G. Material Handling  □ Yes  □ No  □ N/A
   H. Demolition  □ Yes  □ No  □ N/A
   I. Steel Erection  □ Yes  □ No  □ N/A
   J. Underground Construction  □ Yes  □ No  □ N/A
5. Does the company have a lost time injury rate and a total recordable injury rate of less than or equal to the national average for North American Industrial Classification System (NAICS) Category 23 for each of the past five (5) years? (Attach the Bidder's OSHA 300 and 300A logs for the past five (5) years) □ Yes □ No

6. Does the Bidder have an experience modifier rate of 1.0 or less? (Attach the Bidder's NCCI workers compensation experience rating sheets for the past five (5) years) □ Yes □ No

7. Has the Bidder had any OSHA inspections within the past six (6) months? (If “YES”, provide sufficient documentation to indicate the nature of the inspection, the findings, and magnitude of the issues.) □ Yes □ No

---

**ACKNOWLEDGEMENT**

THE STATE OF TEXAS
COUNTY OF TRAVIS

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

**Bidder's full name and entity status:**

______________________________
Signature, Authorized Representative of Bidder

______________________________
Title

______________________________
Date

END
BIDDING AFFIDAVIT OF NON-COLLUSION,
NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING FOR

City of Sunset Valley – Valley Park Erosion Control Improvements

State of Texas
County of Travis

The undersigned “Affiant” is a duly authorized representative of the bidder for the purpose of making this Affidavit, and, after being first duly sworn, has deposed and stated and hereby deposes and states, to the best of his or her personal knowledge and belief as follows:

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

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

1. Anti-Collusion Statement. The Bidder has not and will not in any way directly or indirectly:
   a. colluded, conspired, or agreed with any other person, firm, corporation, bidder or potential bidder to the amount of this bid or the terms or conditions of this bid.
   b. paid or agreed to pay any other person, firm, corporation bidder or potential bidder any money or anything of value in return for assistance in procuring or attempting to procure a contract or in return for establishing the prices in the attached bid or the bid of any other bidder.

2. Preparation of Invitation for Bid and Contract Documents. The Bidder has not received any compensation or a promise of compensation for participating in the preparation or development of the underlying bid or contract documents. In addition, the Bidder has not otherwise participated in the preparation or development of the underlying bid or contract documents, except to the extent of any comments or questions and responses in the bidding process, which are available to all bidders, so as to have an unfair advantage over other bidders, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.

3. Participation in Decision Making Process. The Bidder has not participated in the evaluation of bids or proposals or other decision making process for this solicitation, and, if Bidder is awarded a contract hereunder, no individual, agent, representative, consultant or sub contractor or consultant associated with Bidder, who may have been involved in the evaluation or other decision making process for this solicitation, will have any direct or indirect financial interest in the Contract, provided that the Bidder may have provided relevant product or process information to a consultant in the normal course of its business.

4. Present Knowledge. Bidder is not presently aware of any potential or actual conflicts of interest regarding this solicitation, which either enabled Bidder to obtain an advantage over other bidders or would prevent Bidder from advancing the best interests of OWNER in the course of the performance of the Contract.

5. City Code. No individual with a substantial interest in Bidder is a City official or employee or is related to any City official or employee within the first or second degree of consanguinity or affinity.
6. Chapter 176 Conflict of Interest Disclosure. In accordance with Chapter 176 of the Texas Local Government Code, the Bidder:

a. does not have an employment or other business relationship with any local government officer of OWNER or a family member of that officer that results in the officer of family member receiving taxable income;

b. has not given a local government officer of OWNER one or more gifts, other than gifts of food lodging transportation or entertainment accepted as a guest, that have an aggregate value of more than $250 in the twelve month period preceding the date the officer becomes aware of the execution of the Contract or that OWNER is considering doing business with the Bidder.

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

7. Anti-Lobbying. As set forth in paragraph 1.i. of the Instructions to Bidders Section 00100, between the date that the Invitation for Bid was issued and the date of full execution of the Contract, Bidder has not made and will not make a representation to a member of the City Council, a member of a City Board, or any other official, employee or agent of the City, other than the authorized contact person for the solicitation.

If the Bidder cannot affirmatively swear and subscribe to the forgoing statements, the Bidder shall provide a detailed written explanation in the space provided below or, as necessary, on separate pages to be annexed hereto.

Signature: _______________________________ Date: _______________________________

Printed Name: ___________________________

Title: _________________________________

Firm/Entity: ___________________________

Subscribed and sworn to before me this ___ day of ______, 20__.  

____________________________________ My Commission Expires ____________

Notary Public

BIDDER’S EXPLANATION:_____________________________________________________

END
Bidding Requirements, Contract Forms and Conditions of the Contract

NONRESIDENT BIDDER PROVISIONS

Section 00475

Bidder must answer the following questions in accordance with Vernon’s Texas Statutes and Codes Annotated Government Code § 2252.002, as amended:

Is the bidder that is making and submitting this bid a “resident bidder” or a “non-resident bidder”?

Answer: __________________________________________

(1) Texas Resident Bidder - A bidder whose principal place of business is in Texas and includes a Contractor whose ultimate parent company or majority owner has its principal place of business in Texas.

(2) Nonresident Bidder - A bidder who is not a Texas Resident Bidder.

If the Bidder is a “Nonresident Bidder”, does the state, in which the Nonresident Bidder’s principal place of business is located, have a law requiring a Nonresident Bidder of that state to bid a certain amount or percentage under the bid of a Resident Bidder of that state in order for the nonresident bidder of that state to be awarded a contract on his bid in such state?

Answer: Yes or No Which state? ______________________

If the answer to Question B is “yes”, then what amount or percentage must a Texas Resident Bidder bid under the bid price of a Resident Bidder of that state in order to be awarded a contract on such bid in said state?

Answer: __________________________________________

Signature

END
STATE OF TEXAS
COUNTY OF TRAVIS

THIS AGREEMENT is made and entered into this _____ day of _______________, 20____, by and between the City of Sunset Valley, Texas, a municipal corporation, organized and existing under laws of State of Texas, acting through its Mayor or other duly authorized designee, hereinafter referred to as the "OWNER," and ________________________________, of the City of ____________, County of ____________, and State of __ Texas________, hereinafter referred to as the "CONTRACTOR."

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

City of Sunset Valley – Valley Park Erosion Control Improvements ____________________________________________

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

$_ ____________________________

(Figures)  (Words)

The CONTRACTOR hereby agrees to commence work on the date specified in the written "Notice to Proceed" to be issued by the OWNER and to finally complete construction of the improvements, as required by the Project Manual, Drawings and Addenda for the Work within Thirty (30) Calendar Days. Waiver of any breach of this Contract shall not constitute waiver of any subsequent breach.

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

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

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

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

By: __________________________________

City of Sunset Valley (Signature)

__________________________

Date

Title of Signatory


CONTRACTOR

§ By: _______________________________

§ (Signature)

__________________________

Date

§ Printed Name of Signatory

§ Title of Signatory, Authorized Representative

§ ATTEST (as applicable)

§ Secretary of Corporate Bidder or Corporate General Partner *

*Copy of Corporate Resolution and minutes with certificate of officer of CONTRACTOR as to authority of signatory to bind CONTRACTOR is to be signed, dated no earlier than one week before the date of award of Contract, and attached to this document.

END
STATE OF TEXAS
COUNTY OF __________________________

Project Name City of Sunset Valley – Valley Park Erosion Control Improvements

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

Conditions of this Bond are such that, whereas, Principal has entered into a certain written contract with OWNER, dated the ____________ day of ____________________, ________, which Agreement is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein. Now, therefore, the condition of this obligation is such, that if said Principal shall faithfully perform said Agreement and shall in all respects duly and faithfully observe and perform all and singular covenants, conditions and agreements in and by said contract agreed and covenanted by Principal to be observed and performed, and according to true intent and meaning of said Agreement hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect. If OWNER notifies Principal and Surety the OWNER is considering declaring Principal in default, Surety agrees to meet with OWNER and Principal no later than fifteen days after receipt of such notice to discuss methods of performing the Work of the Contract.

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

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

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

Principal
By________________________
(Signature)
Title________________________
Address________________________
_________________________________
_________________________________
Telephone________________ Fax________________
E-Mail Address ____________________

Surety
By________________________
(Signature)
Title________________________
Address________________________
_________________________________
_________________________________
Telephone________________ Fax________________
E-Mail Address ____________________
Name and address of Resident Agent of Surety:

____________________________________________________________________________

____________________________________________________________________________

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

END
Bidding Requirements, Contract Forms and Conditions of the Contract
PAYMENT BOND
Section 00620

STATE OF TEXAS
COUNTY OF _______________________
Project Name City of Sunset Valley – Valley Park Erosion Control Improvements

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

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

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

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

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

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

______________________________________
Principal
By___________________________________
(Signature)
Title_______________________________
Address_____________________________

______________________________________
Surety
By___________________________________
(Signature)
Title_______________________________
Address_____________________________

Telephone__________________ Fax__________
E-Mail Address __________________________
Name and address of Resident Agent of Surety:

______________________________________________________________________________

______________________________________________________________________________

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

END
To: City of Sunset Valley, Texas, ("OWNER")

I hereby certify that our firm conforms to the Minimum Standard Nondiscrimination in Employment Policy stated below:

**Minimum Standard Nondiscrimination in Employment Policy**

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

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

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

Contractor agrees that to the extent of any inconsistency, omission, or conflict with its current nondiscrimination employment policy, the Contractor has expressly adopted the provisions set forth above, as the Contractor’s Non-Discrimination Policy or as an amendment to such Policy and such provisions are intended to not only supplement the Contractor’s policy, but will also supersede the Contractor’s policy to the extent of any conflict.

Upon contract award, the Contractor shall provide a copy to the City of the Contractor’s nondiscrimination policy on company letterhead, which conforms in form, scope, and content to this nondiscrimination policy, which has been adopted by the Contractor for all purposes will be considered the Contractor’s nondiscrimination policy without the requirement of a separate submittal.

**Term:**

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

Dated this ________________ day of ________________________, _____.

CONTRACTOR ______________________________
Authorized Signature ___________________________
Title ________________________________________
During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, “DOT”) Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contract for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor’s obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its book, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Texas Department of Transportation to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Recipient, or the Texas Department of Transportation as appropriate, and shall set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of the contractor’s noncompliance with the nondiscrimination provisions of this contract, the Recipient shall impose such contract sanctions as it or the Texas Department of Transportation may determine to be appropriate, including, but not limited to:

   (a) withholding of payments to the contractor under the contract until the contractor complies, and or (b) cancellation, termination or suspension of the contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Recipient or the Texas Department of Transportation may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Recipient to enter into such litigation to protect the
interests of the Recipient, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(DOT 1050.2, 08/24/71)

**Contractor's full name and entity status:**

**Signature, Authorized Representative of Contractor**

____________________________________________________

**Title**

____________________________________________________

**Date**

END
This Certificate shall be completed by a licensed insurance agent:

Name and Address of Agency: 

______________________________________________________________

City of Sunset Valley Reference:

Project Name: Valley Park Erosion Control Improvements

Project Location: 31 Reese Drive, Sunset Valley Texas

Name and Address of Insured:

______________________________________________________________

Project Mgr.: 

Insurers Affording Coverages:

Insurer A: 

Insurer B: 

Insurer C: 

Insurer D: 

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<tr>
<th>INSR. LTR.</th>
<th>TYPE OF INSURANCE</th>
<th>POLICY NUMBER</th>
<th>POLICY EFFECTIVE DATE (MM/DD/YYYY)</th>
<th>POLICY EXPIRATION DATE (MM/DD/YYYY)</th>
<th>LIMITS OF LIABILITY</th>
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<td>Commercial General Liability Policy</td>
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<td>□ Yes □ No -- Underground</td>
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<td>□ Yes □ No -- Contractors/ Subcontractors Work</td>
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<td>□ Yes □ No -- Additional Insured Form – CG 2010</td>
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<td>Pollution/ Environmental Impairment Policy</td>
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Occurrence $ 

Aggregate $
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<th>POLICY EFFECTIVE DATE (MM/DD/YYYY)</th>
<th>POLICY EXPIRATION DATE (MM/DD/YYYY)</th>
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<td>□ Yes □ No -- Any Auto</td>
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<td>□ Yes □ No -- All Owned Autos</td>
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<td>□ Yes □ No -- Non-Owned Autos</td>
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<td>□ Yes □ No -- Hired Autos</td>
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<td>□ Yes □ No -- Waiver of Subrogation – CA0444</td>
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<td>□ Yes □ No -- MCS 90</td>
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<td><strong>Excess Liability</strong></td>
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<td>□ Umbrella Form</td>
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<td>□ Excess Liability Follow Form</td>
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<td><strong>Workers Compensation and Employers Liability</strong></td>
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<td></td>
<td><strong>Is a Builders Risk or Installation Insurance Policy provided?</strong></td>
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<td>□ Yes □ No -- Is the City shown as loss payee/mortgagee?</td>
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<td></td>
<td><strong>Professional Liability</strong></td>
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<td>□ Yes □ No -- 30 Day Notice of Cancellation</td>
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Retroactive Date: ___________

This form is for informational purposes only and certifies that policies of insurance listed above have been issued to insured named above and are in force at this time. Not withstanding any requirements, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, insurance afforded by policies described herein is subject to all terms, exclusions and conditions of such policies.

**CERTIFICATE HOLDER:**

City of Sunset Valley
3405 Jones Road
Sunset Valley, Texas

**DATE ISSUED: _____________________________

AUTHORIZED REPRESENTATIVE SIGNATURE
Licensed Insurance Agent

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

City of Sunset Valley, Texas
3205 Jones Road
Sunset Valley, Texas 78745

<table>
<thead>
<tr>
<th>CONTRACTOR/PURCHASER:</th>
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<tbody>
<tr>
<td>Street Address:</td>
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<tr>
<td>City, State, ZIP Code:</td>
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<tr>
<td>PROJECT:</td>
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<td>Project Manager:</td>
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<td>FDU No.:</td>
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<tr>
<td>CIP ID No.</td>
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</table>

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

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

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

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

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<tr>
<th>City of Sunset Valley, Texas</th>
<th>Title</th>
<th>Date</th>
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<tr>
<th>CONTRACTOR/PURCHASER:</th>
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<td>By:</td>
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<td>Title:</td>
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<td>Date:</td>
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</table>

NOTE: This certificate cannot be issued for the purchase, lease, or rental of a motor vehicle. THIS CERTIFICATE DOES NOT REQUIRE A NUMBER TO BE VALID. Sales and Use Tax "Exemption Numbers" or "Tax Exempt" Numbers do not exist. This certificate should be furnished to the supplier. Do not send the completed certificate to the Comptroller of Public Accounts.

End
STATE OF TEXAS
COUNTY OF TRAVIS

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

"My name is _____________________________________________, hereinafter known as Affiant.

"I am over the age of 18 years and I have never been convicted of a crime. I am the _____________________________________________ of _____________________________________________ hereinafter known as CONTRACTOR.

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

"WHEREAS CONTRACTOR has submitted a bid to the City of Sunset Valley as the Prime CONTRACTOR and anticipates being awarded a contract for the construction of Valley Park Erosion Control Improvements _____________________________________________, located at 31 Reese Drive _____________________________________________, Sunset Valley, Texas, hereinafter known as Project, for the City of Sunset Valley, Texas, hereinafter known as OWNER, and

"WHEREAS asbestos in a dust form is a recognized health hazard, and

"WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project;

"THEREFORE the CONTRACTOR affirms and understands the following:

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

2. Realizing that there might be some materials in which a satisfactory non-asbestos containing material could not be obtained, the Consultant has received prior approval from the OWNER before specifying any such asbestos containing material. Those approved materials are the only asbestos containing materials that are exempt from the above prohibition.
3. The CONTRACTOR certifies and affirms their understanding that if any asbestos containing materials not approved by the City of Sunset Valley for inclusion into the Project, are determined, as a result of any inspection and sample analysis performed by an individual(s) and/or firm(s) certified and/or licensed to perform such inspection by the United States Government and/or the State of Texas, to have been incorporated into the construction of the Project, or brought onto the site of the Project, the OWNER shall look to the CONTRACTOR for reimbursement of any and all costs incurred in the removal and/or other abatement of said asbestos containing materials.

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

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

Signature of Affiant: _________________________

STATE OF TEXAS
COUNTY OF TRAVIS

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

__________________________________________
Notary Public, State of Texas

__________________________________________
Printed Name of Notary
My Commission Expires: _____________________

END
STATE OF TEXAS
COUNTY OF TRAVIS

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

"My name is____________________________________________________, hereinafter known as Affiant.

"I am over the age of 18 years and I have never been convicted of a crime. I am the __________________________________________________ of _____________________________________________________________ hereinafter known as CONTRACTOR.

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

"WHEREAS CONTRACTOR was awarded a Contract for, and was the Prime CONTRACTOR for the construction of_________________________________________________________, located at ___________________________________________________________, Sunset Valley, Texas, hereinafter known as Project, for the City of Sunset Valley, Texas, hereinafter known as OWNER, and

"WHEREAS asbestos in a dust form is a recognized health hazard, and

"WHEREAS the OWNER desires not to have any asbestos containing materials used or incorporated into the construction of the Project;

"THEREFORE the CONTRACTOR affirms and understands the following:

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

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

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

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

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

Signature of Affiant: ________________________________

__________________________________________________
STATE OF TEXAS
COUNTY OF TRAVIS

ON_________________, 20___, personally appeared________________________
_________________________ and been duly sworn by me, subscribed to the foregoing affidavit and has stated that the facts stated therein are true and correct.

__________________________________________________
Notary Public, State of Texas

__________________________________________________
Printed Name of Notary
My Commission Expires: ____________________________

END
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ARTICLE 1 – DEFINITIONS

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

1.1 **Addendum** - Written instruments issued by the Contract Awarding Authority which clarify, correct or change the bidding requirements or the Contract Documents prior to the Due Date. “Addenda” is the plural form of Addendum.

1.2 **Agreement** - Prescribed form, Section 00500.

1.3 **Alternative Dispute Resolution** - The process by which a disputed Claim may be settled if the OWNER and the CONTRACTOR cannot reach an agreement between themselves, as an alternative to litigation.

1.4 **Bid** - A complete, properly signed response to an Invitation for Bid that, if accepted, would bind the Bidder to perform the resultant Contract.

1.5 **Bidder** - A person, firm, or entity that submits a Bid in response to a Solicitation. Any Bidder may be represented by an agent after submitting evidence demonstrating the agent’s authority. The agent cannot certify as to his own agency status.

1.6 **Bid Documents** - The advertisement or Invitation for Bids, instructions to Bidders, the Bid form, the Contract Documents and Addenda.

1.7 **Calendar Day** - Any day of the week; no days being excepted. Work on Saturdays, Sundays, and/or Legal Holidays shall be coordinated with OWNER.

1.8 **Change Directive** - A written directive to CONTRACTOR, signed by OWNER, ordering a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Amount or Contract Time, or both. A Change Directive may be used in the absence of total agreement on the terms of a Change Order. A Change Directive does not change the Contract Amount or Contract Time, but is evidence that the parties expect that the change directed or documented by a Change Directive will be incorporated in a subsequently issued Change Order.

1.9 **Change Orders** - Written agreements entered into between CONTRACTOR and OWNER authorizing an addition, deletion, or revision to the Contract, issued on or after the Execution Date of the Agreement.

1.10 **Claim** - A written demand seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of the Contract.

1.11 **Contract** - The binding legal agreement between the OWNER and the CONTRACTOR. The Contract represents the entire and integrated agreement between OWNER and CONTRACTOR for performance of the Work, as evidenced by the Contract Documents.

1.12 **Contract Amount** - The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents.

1.13 **Contract Awarding Authority** - A City department authorized to enter into Contracts on behalf of the City.


1.15 **Contract Time** - The number of days allowed for completion of the Work as defined by the Contract. When any period is referred to in days, it will be computed to exclude the first and include the last day of such period. A day of twenty-four hours measured from midnight to the next midnight will constitute a day.

1.16 **CONTRACTOR** - The individual, firm, corporation, or other business entity with whom OWNER has entered into the Contract for performance of the Work.
1.17 **Critical Path** - The longest series of tasks that runs consecutively from the beginning to the end of the project, as determined by duration and workflow sequence. This longest path sets the managerial standard for how quickly a project can be completed, given appropriate resources.

1.18 **Drawings** - Those portions of the Contract Documents which are graphic representations of the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been approved by OWNER. Drawings may include plans, elevations, sections, details, schedules and diagrams. Shop Drawings are not Drawings as so defined.

1.19 **Due Date** - The date and time specified for receipt of Bids.

1.20 **Engineer/Architect (E/A)** - The OWNER’s design professional identified as such in the Contract. The titles of "Architect/Engineer," "Architect" and "Engineer" used in the Contract Documents shall read the same as Engineer/Architect (E/A). Nothing contained in the Contract Documents shall create any contractual or agency relationship between E/A and CONTRACTOR.

1.21 **Equal** - The terms "equal" or "approved equal" shall have the same meaning.

1.22 **Execution Date** - Date of last signature of the parties to the Agreement.

1.23 **Field Order** - A written order issued by Owner’s Representative which orders minor changes in the Work and which does not involve a change in the Contract Amount or the Contract Time.

1.24 **Final Completion** - The point in time when OWNER determines that all Work has been completed and final payment to CONTRACTOR will be made in accordance with the Contract Documents.

1.25 **Force Account** - a basis of payment for the direct performance of Work with payment based on the actual cost of the labor, equipment and materials furnished and consideration for overhead and profit as set forth in Section 11.5.

1.26 **Inspector** - The authorized representative of any regulatory agency that has jurisdiction over any portion of the Work.

1.27 **Invitation for Bid (IFB)** - a Solicitation requesting pricing for a specified Good or Service which has been advertised for Bid in a newspaper and/or the Internet.

1.28 **Legal Holidays**

1.28.1 The following are recognized by the OWNER:

<table>
<thead>
<tr>
<th>Holiday</th>
<th>Date Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Year's Day</td>
<td>January 1</td>
</tr>
<tr>
<td>Martin Luther King, Jr.'s Birthday</td>
<td>Third Monday in January</td>
</tr>
<tr>
<td>President's Day</td>
<td>Third Monday in February</td>
</tr>
<tr>
<td>Memorial Day</td>
<td>Last Monday in May</td>
</tr>
<tr>
<td>Independence Day</td>
<td>July 4</td>
</tr>
<tr>
<td>Labor Day</td>
<td>First Monday in September</td>
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<tr>
<td>Veteran's Day</td>
<td>November 11</td>
</tr>
<tr>
<td>Thanksgiving Day</td>
<td>Fourth Thursday in November</td>
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<tr>
<td>Friday after Thanksgiving</td>
<td>Friday after Thanksgiving</td>
</tr>
<tr>
<td>Christmas Eve</td>
<td>December 24</td>
</tr>
<tr>
<td>Christmas Day</td>
<td>December 25</td>
</tr>
</tbody>
</table>

1.28.2 If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday.
1.28.3 Christmas Eve is observed only if it falls on a Monday through Thursday. If Christmas Eve falls on a Friday, that day is observed as the Christmas Day holiday.

1.29 Milestones - A significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.30 Notice to Proceed - A Written Notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.31 OWNER - City of Austin, Texas, a municipal corporation, home rule city and political subdivision organized and existing under the laws of the State of Texas, acting through the City Manager or his/her designee, officers, agents or employees to administer design and construction of the Project.

1.32 Owner's Representative - The designated representative of the OWNER. The Owner’s Representative will be identified at the pre-construction conference.

1.33 Partial Occupancy or Use - Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work, provided OWNER and CONTRACTOR have accepted in writing the responsibilities assigned to each of them for payments, retainage if any, security, maintenance, utilities, corrective work, insurance and warranties.

1.34 Project - The subject of the Work and its intended result.

1.35 Project Manual - That portion of the Contract Documents which may include the following: introductory information; bidding requirements, Contract forms and General and Supplemental General Conditions; General Requirements; Specifications; Drawings; MBE/WBE or DBE Procurement Program Package; Project Safety Manual; and Addenda.

1.36 Resident Project Representative - The authorized representative of E/A who may be assigned to the site or any part thereof.

1.37 Shop Drawings - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR as required by the Contract Documents.

1.38 Specifications - Those portions of the Contract Documents consisting of written technical descriptions as applied to the Work, which set forth to CONTRACTOR, in detail, the requirements which must be met by all materials, equipment, construction systems, standards, workmanship, equipment and services in order to render a completed and useful project.

1.39 Solicitation - Solicitation means, as applicable, an Invitation for Bid or a Request for Proposal.

1.40 Substantial Completion - The stage in the progress of the Work when the Work, or designated portion thereof, is sufficiently complete in accordance with the Contract Documents so OWNER can occupy or utilize the Work for its intended use, as evidenced by a Certificate of Substantial Completion approved by OWNER.

1.41 Subcontractor - An individual, firm, corporation, or other business entity having a direct contract with CONTRACTOR for the performance of a portion of the Work under the Contract.

1.42 Sub-Subcontractor - A person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the work.
1.43 **Superintendent** - The representative of CONTRACTOR authorized in writing to receive and fulfill instructions from the Owner's Representative, and who shall supervise and direct construction of the Work.

1.44 **Supplemental General Conditions** - The part of the Contract Documents which amends or supplements the General Conditions. All General Conditions which are not so amended or supplemented remain in full force and effect.

1.45 **Supplier** - An individual or entity having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.46 **Time Extension Request** - An approved request for time extension on a form acceptable to OWNER.

1.47 **Work** - The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents.

1.48 **Working Day** - Any day of the week, not including Saturdays, Sundays, or Legal Holidays in which conditions under the CONTRACTOR's control will permit work for a continuous period of not less than seven (7) hours between 7:00 a.m. and 6:00 p.m. Upon agreement with Owner's Representative, work on Saturdays, Sundays and/or Legal Holidays may be allowed and will be considered a Working Day.

1.49 **Working Hours**

1.49.1 **Working Day Contract**: All Work shall be done between 7:00 a.m. and 6:00 p.m. unless authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. If night Work is authorized and conditions under CONTRACTOR's control will permit Work for a continuous period of not less than seven (7) hours between 12:00 a.m. and 11:59 p.m. it will be considered a Working Day. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.

1.49.2 **Calendar Day Contract**: All Work shall be done between 7:00 a.m. and 6:00 p.m. unless authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.

1.50 **Written Notice** - Written communication between OWNER and CONTRACTOR. Written Notice shall be deemed to have been duly served if delivered in person to Owner's Representative or CONTRACTOR's duly authorized representative, or if delivered at or sent by registered or certified mail to the attention of Owner's Representative or CONTRACTOR's duly authorized representative at the last business address known to the party giving notice.

**ARTICLE 2 - PRELIMINARY MATTERS**

2.1 **Delivery of Agreement, Bonds, Insurance, etc.:** Within five (5) Working Days after written notification of award of Contract, CONTRACTOR shall deliver to OWNER signed Agreement, Bond(s), Insurance Certificate(s) and other documentation required for execution of Contract.

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

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

2.4 **Before Starting Construction:**

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

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

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

2. An organizational chart showing the principals and management personnel who will be involved with the Work, including each one’s responsibilities for the Work;

3. To the extent not set forth in the Section 00400 Statement of Contractor’s Experience, a complete listing of the CONTRACTOR’s employees proposed for the Work. List each one by name and job title, and show length of employment with CONTRACTOR;
.4 To the extent not set forth in the Section 00410 Statement of Bidder’s Safety Experience, a discussion and confirmation of the CONTRACTOR’s commitment to safety by providing a copy of its employee’s safety handbook and the safety records for the past three years of CONTRACTOR’s proposed project manager and Superintendent;

.5 A preliminary schedule of Shop Drawing and sample submittals;

.6 A preliminary schedule of values for all of the Work, subdivided into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will be deemed to include an appropriate amount of overhead and profit applicable to each item of Work;

.7 To the extent not set forth in the Section 00400 Statement of Contractor’s Experience, a letter designating CONTRACTOR’s Superintendent and project manager, and a confirmation of past project experience for the CONTRACTOR’s Superintendent and project manager specifically intended for the Work;

.8 A letter from CONTRACTOR and Subcontractor(s) listing salaried specialists. A salaried specialist is anyone except an hourly worker whose wage rate is governed by Section 00830 of this agreement;

.9 A letter designating the "Competent Person(s)" on general safety and excavation safety measures along with certifications or other documentation of the safety representative's qualifications;

.10 If applicable, an excavation safety system plan;

.11 If applicable, a plan illustrating proposed locations of temporary facilities;

.12 A completed Non-Use of Asbestos Affidavit (Prior to Construction);

.13 A letter designating the Texas Registered Professional Land Surveyor for layout of the Work, if the Work requires the services of a surveyor; and

.14 Appropriate safety training certificates for workers that will initially be on site;

.15 A certificate of worker’s compensation insurance coverage for all persons providing services on the Project (refer to 5.2.1.3 in Section 00700 for definition of persons providing services on the Project);

.16 A Construction Equipment Emissions Reduction Plan.

2.4.3 Neither the acceptance nor the approval of any of the submittals required in paragraph 2.4.2, above, will constitute the adoption, affirmation, or direction of the CONTRACTOR’S means and methods.

2.5 Preconstruction Conference: Prior to commencement of Work at the site, CONTRACTOR must attend a preconstruction conference with Owner’s Representative and others, as set forth in Division 1. Additionally, prior to commencement of work, the CONTRACTOR shall host a preconstruction conference for the Subcontractors identified on the originally approved compliance plan, Owner’s Representative and others, as set forth in Division 1. The CONTRACTOR shall notify all Subcontractors five (5) working days prior to the preconstruction conference. If the CONTRACTOR has included Subcontractors in the initial preconstruction conference, the additional Subcontractor preconstruction conference will not be required.

2.6 Initially Acceptable Schedules: Unless otherwise provided in the Contract Documents, CONTRACTOR shall obtain approval of Owner’s Representative on the Baseline Schedule submitted in accordance with paragraph 2.4.2.1 and Division 1 before the first progress payment will be made to CONTRACTOR. The Baseline Schedule must provide for an orderly
progression of the designated portion of the Work to completion within any specified Milestones and Contract Times. Acceptance of the schedule by Owner's Representative will neither impose on Owner's Representative responsibility or liability for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility for such Work. CONTRACTOR's schedule of Shop Drawings and sample submissions must provide an acceptable basis for reviewing and processing the required submittals. CONTRACTOR's schedule of values must conform to the requirements set forth in Division 1.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.1 Intent:

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

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

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

3.1.2 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

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

3.3 Amending and Supplementing Contract Documents:

3.3.1 The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
ARTICLE 3.4

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

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

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

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

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

4.1 Availability of Lands: The OWNER will provide access to all land and interests in land required for the Work and will notify CONTRACTOR of any restrictions in such access. CONTRACTOR may make a claim if OWNER fails to provide timely access to the Work. CONTRACTOR must obtain any additional temporary construction facilities, stockpiling or storage sites not otherwise provided.

4.2 Subsurface and Physical Conditions:

4.2.1 CONTRACTOR specifically represents that it has carefully examined the plans, the geotechnical report, if any, and the site of the proposed Work and is thoroughly familiar with all of the conditions surrounding construction of the Project, having had the opportunity to conduct any and all additional inquiry, tests and investigation that he/she deems necessary and proper. CONTRACTOR acknowledges the receipt of the geotechnical report, if any, and agrees that the report, while it is an accurate record of the geotechnical conditions at the boring locations, is not a guarantee of specific site conditions which may vary between boring locations.

4.2.2 CONTRACTOR must notify OWNER in writing as soon as reasonably possible, but no later than three (3) calendar days, if unforeseen conditions are encountered at the site which are (i) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (ii) unknown physical conditions of an unusual nature, that differ materially from those normally encountered in the type of work being performed under this Contract. CONTRACTOR may not disturb the conditions until OWNER conducts an investigation. Owner's Representative and E/A will promptly investigate such
conditions with E/A. If it is determined that such conditions differ materially and cause an increase or decrease in the CONTRACTOR's cost of or time required for performance of any part of the Work, Owner’s Representative will recommend an equitable adjustment in the Contract Amount or Contract Time, or both. If it is determined that such conditions are not materially different from those indicated in the Contract Documents, Owner’s Representative will notify CONTRACTOR in writing of such findings and the Contract will not be adjusted. CONTRACTOR may dispute such a determination in accordance with Article 16.

4.2.3 Notwithstanding any other provision of this Contract, CONTRACTOR is solely responsible for the location and protection of any and all public utility lines and utility customer service lines in the Work area. "Public utility lines" means the utility distribution and supply system, and "utility customer service lines" means the utility lines connecting customers to the utility distribution and collection system. Generally, existing utility customer service line connections are not shown on the Drawings. CONTRACTOR shall notify "One Call" and exercise due care to locate, mark, uncover and otherwise protect all such lines in the construction zone and any of CONTRACTOR's work or storage areas. CONTRACTOR's responsibility for the location and protection of utilities is primary and nondelegable. CONTRACTOR shall indemnify or reimburse such expenses or costs (including fines that may be levied against OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the work area. OWNER reserves the right to repair any damage CONTRACTOR causes to such utilities at CONTRACTOR's expense. If a public line and/or customer service line is damaged by CONTRACTOR, CONTRACTOR shall give verbal notice within one (1) hour and written notice within twenty-four (24) hours to the Owner's Representative.

4.2.4 CONTRACTOR shall take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature shall be disturbed without written permission of OWNER and Texas Historical Commission. When such objects are uncovered unexpectedly, CONTRACTOR shall stop all Work in close proximity and notify Owner's Representative and Texas Historical Commission of their presence and shall not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on OWNER's property shall remain property of State of Texas, Texas Historical Commission conforming to Texas Natural Resources Code. If it is determined by OWNER, in consultation with Texas Historical Commission, that exploration or excavation of primitive records or antiquities on Project site is necessary to avoid loss, CONTRACTOR shall cooperate in salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Amount and/or Contract Time will be equitably adjusted.

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

4.4 Hazardous Materials:

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

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

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

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

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

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

3 CONTRACTOR shall be obligated to resume Work at the affected area of the Project only after OWNER's Representative provides written certification that (i) the Hazardous Materials have been removed or rendered harmless and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project or site. The CONTRACTOR shall be responsible for continuing the Work in the unaffected portion of the Project and site.

4 CONTRACTOR will be entitled, in accordance with these General Conditions, to an adjustment in its Contract Amount and/or Contract Time(s) to the extent CONTRACTOR’s cost and/or time of performance have been adversely impacted by the presence of Hazardous Materials.

5 Notwithstanding the preceding provisions of this Section 4.1, OWNER is not responsible for Hazardous Materials introduced to the Site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable. CONTRACTOR shall indemnify, defend and hold harmless OWNER and OWNER's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys’ fees and expenses, arising out of or resulting from those hazardous materials introduced to the site by CONTRACTOR, Subcontractors or anyone for whose acts they may be liable.
4.4.5 CONTRACTOR shall be responsible for use, storage and remediation of any hazardous materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers or anyone else for whom CONTRACTOR is responsible.

ARTICLE 5 - BONDS AND INSURANCE

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

5.2 Workers' Compensation Insurance Coverage:

5.2.1 Definitions:

.1 Certificate of coverage ("certificate") - A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement (TWCC-81, TWCC-82, TWCC-83, or TWCC-84), showing statutory workers’ compensation insurance coverage for the person’s or entity’s employees providing services on the Project, for the duration of the Project.

.2 Duration of the Project - includes the time from the beginning of the Work on the Project until the CONTRACTOR's/ person’s Work on the Project has been completed and accepted by OWNER.

.3 Persons providing services on the Project ("subcontractor" in Texas Labor Code, Section 406.096) - includes all persons or entities performing all or part of the services the CONTRACTOR has undertaken to perform on the Project, regardless of whether that person contracted directly with the CONTRACTOR and regardless of whether that person has employees. This includes, without limitation, independent contractors, Subcontractors, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the Project. "Services" include, without limitation, providing, hauling, or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the Project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

5.2.2 CONTRACTOR shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all
employees of the CONTRACTOR providing services on the Project, for the duration of the Project.

**5.2.3** CONTRACTOR must provide a certificate of coverage to OWNER prior to being awarded the Contract.

**5.2.4** If the coverage period shown on the CONTRACTOR’s current certificate of coverage ends during the duration of the Project, the CONTRACTOR must, prior to the end of the coverage period, file a new certificate of coverage with OWNER showing that coverage has been extended.

**5.2.5** CONTRACTOR shall obtain from each person providing services on the Project, and provide to OWNER:

.1 A certificate of coverage, prior to that person beginning Work on the Project, so OWNER will have on file certificates of coverage showing coverage for all persons providing services on the Project; and

.2 No later than seven (7) days after receipt by CONTRACTOR, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project.

**5.2.6** CONTRACTOR shall retain all required certificates of coverage for the duration of the Project and for one (1) year thereafter.

**5.2.7** CONTRACTOR shall notify OWNER in writing by certified mail or personal delivery, within ten (10) days after CONTRACTOR knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.

**5.2.8** CONTRACTOR shall post on each Project site a notice, in the text, form and manner prescribed by the Texas Workers’ Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

**5.2.9** CONTRACTOR shall contractually require each person with whom it contracts to provide services on a Project, to:

.1 Provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;

.2 Provide to CONTRACTOR, prior to that person beginning Work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;

.3 Provide CONTRACTOR, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

.4 Obtain from each other person with whom it contracts, and provide to CONTRACTOR: a) a certificate of coverage, prior to the other person beginning Work on the Project; and b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;

.5 Retain all required certificates of coverage on file for the duration of the Project and for one (1) year thereafter;
.6 Notify OWNER in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and

.7 Contractually require each person with whom it contracts, to perform as required by paragraphs 5.2.9.1 - 5.2.9.7, with the certificates of coverage to be provided to the person for whom they are providing services.

5.2.10 By signing this Contract or providing or causing to be provided a certificate of coverage, CONTRACTOR is representing to OWNER that all employees of the CONTRACTOR who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the Texas Worker's Compensation Commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject CONTRACTOR to administrative penalties, criminal penalties, civil penalties, or other civil actions.

5.2.11 CONTRACTOR's failure to comply with any of these provisions is a breach of Contract by CONTRACTOR which entitles OWNER to declare the Contract void if CONTRACTOR does not remedy the breach within ten (10) days after receipt of notice of breach from OWNER.

5.3 Other Bond and Insurance Requirements: For additional insurance requirements, refer to the Supplemental General Conditions.

5.4 Bonds:

5.4.1 General.

.1 Bonds, when required, shall be executed on forms furnished by or acceptable to OWNER. All bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

.2 If the surety on any bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Texas or it ceases to meet the requirements of the preceding paragraph, CONTRACTOR shall within ten (10) days thereafter substitute another bond and surety, both of which must be acceptable to OWNER.

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

5.4.2 Performance Bond.

.1 If the Contract Amount exceeds $100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610.

.2 If the Contract Amount exceeds $25,000 but is less than or equal to $100,000, CONTRACTOR shall furnish OWNER with a Performance Bond in the form set out in Section 00610, unless the original Contract Time is 60 Calendar
Days/40 Working Days or less, in which case CONTRACTOR can agree to the following terms and conditions for payment in lieu of providing a Performance Bond: no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER; CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.

.3 If the Contract Amount is less than or equal to $25,000, CONTRACTOR will not be required to furnish a Performance Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the following terms and conditions: CONTRACTOR shall be entitled to receive 95% of the Contract Amount following Final Completion, and the remaining 5% of the Contract Amount following the one (1) year warranty period.

.4 If a Performance Bond is required to be furnished, it shall extend for the one (1) year warranty period.

5.4.3 Payment Bond.

.1 If the Contract Amount exceeds $50,000, CONTRACTOR shall furnish OWNER with a Payment Bond in the form set out in Section 00620.

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

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

ARTICLE 6 - CONTRACTOR’S RESPONSIBILITIES

6.1 Supervision and Superintendence:

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

6.1.2 CONTRACTOR shall have an English-speaking, competent Superintendent on the Work at all times that work is in progress. The Superintendent will be CONTRACTOR's representative on the Work and shall have the authority to act on the behalf of CONTRACTOR. All communications given to the Superintendent shall be as binding as if given to CONTRACTOR. Either CONTRACTOR or the Superintendent shall provide a cellular telephone number and an emergency and home telephone number at which one or the other may be reached if necessary when work is not in progress. The Superintendent must be an employee of the CONTRACTOR, unless such requirement is waived in writing by the Owner’s Representative. If the CONTRACTOR proposes a management structure with a Project Manager supervising, directing, and managing construction of the work in addition to or in substitution of a Superintendent, the requirements of these Construction Documents with respect to the Superintendent shall likewise apply to any such Project Manager.
.1 CONTRACTOR shall present the resume of the proposed Superintendent to the Owner’s Representative showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. If, in the opinion of the Owner’s Representative, the proposed Superintendent does not indicate sufficient experience in line with the Work, he/she will not be allowed to be the designated Superintendent for the Work.

.2 The Superintendent shall not be replaced without Written Notice to Owner’s Representative. If CONTRACTOR deems it necessary to replace the Superintendent, CONTRACTOR shall provide the necessary information for approval, as stated above, on the proposed new Superintendent.

.3 A qualified substitute Superintendent may be designated in the event that the designated Superintendent is temporarily away from the Work, but not to exceed a time limit acceptable to the Owner’s Representative. CONTRACTOR shall replace the Superintendent upon OWNER’s request in the event the Superintendent is unable to perform to OWNER’s satisfaction.

6.2 Labor, Materials and Equipment:

6.2.1 CONTRACTOR shall maintain a work force adequate to accomplish the Work within the Contract Time. CONTRACTOR agrees to employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any alcoholic or other intoxicating beverages, illegal drugs or controlled substances while on the job or on OWNER’s property, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job. Subject to the applicable provisions of Texas law, CONTRACTOR, Subcontractors, Sub-subcontractors, and their employees may not use or possess any firearms or other weapons while on the job or on OWNER’s property. If OWNER or Owner’s Representative notifies CONTRACTOR that any worker or representative of Contractor is incompetent, disorderly, abusive, or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms in contravention of the applicable provisions of Texas law, or has possessed or was under the influence of alcohol or drugs on the job, CONTRACTOR shall immediately remove such worker or representative, including an officer or owner of CONTRACTOR, from performing Contract Work, and may not employ such worker or representative again on Contract Work without OWNER’s prior written consent. CONTRACTOR shall at all times maintain good discipline and order on or off the site in all matters pertaining to the Project. CONTRACTOR shall pay workers no less than the wage rates established in Section 00830, and maintain weekly payroll reports as evidence thereof, in accordance with the requirements of Chapter 2258 of the Texas Government Code.

6.2.2 Unless otherwise specified in Division 1, CONTRACTOR shall provide and pay for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.2.3 All materials and equipment shall be of good quality and new (including new products made of recycled materials, pursuant to Section 361.426 of the Texas Health & Safety Code), except as otherwise provided in the Contract Documents. If required by Owner’s Representative, CONTRACTOR shall furnish satisfactory evidence (reports of required tests, manufacturer’s certificates of compliance with material requirements, mill reports, etc.) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected,
erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

6.2.4 Substitutes and "Approved Equal" Items:

.1 Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains words reading that no like, equivalent or "approved equal" item or no substitution is permitted, other items of material or equipment of other Suppliers may be submitted by CONTRACTOR, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, to E/A through Owner's Representative under the following circumstances:

1.1 "Approved Equal": If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by E/A as an "approved equal" item, in which case review of the proposed item may, in E/A's sole discretion, be accomplished without compliance with some or all of the requirements for evaluation of proposed substitute items. CONTRACTOR shall provide E/A with the documentation required for E/A to make its determination.

1.2 Substitute Items: If in E/A's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "approved equal" item under subparagraph 6.2.4.1.1, it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided in Division 1 to allow E/A to determine that the item of material or equipment proposed is essentially equivalent to that named and a substitute therefor.

.2 Substitute Construction Methods and Procedures: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may, at CONTRACTOR'S sole risk, including disruptions to the Critical Path of the Progress Schedule, with prior approval of E/A furnish or utilize a substitute means, method, technique, sequence, or procedure of construction. CONTRACTOR shall submit sufficient information to Owner's Representative to allow E/A, in E/A's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by E/A will be same as that provided for substitute items in Division 1.

.3 E/A's Evaluation: E/A will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to subparagraphs 6.2.4.1.1 and 6.2.4.1.2. E/A will be the sole judge of acceptability. No "approved equal" or substitute shall be ordered, installed, or utilized until E/A's review is complete, which will be evidenced by either a Change Order or completion of the Shop Drawing review procedure. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety bond with respect to any "approved equal" or substitute or for any other delay or disruption to the Critical Path of the Project Schedule attributable to any such substitution. OWNER shall not be responsible for any delay due to review time for any "approved equal" or substitute.
.4 CONTRACTOR's Expense: All data and documentation to be provided by CONTRACTOR in support of any proposed "approved equal" or substitute item will be at CONTRACTOR's expense.

.5 The approval of the E/A will not relieve the CONTRACTOR from primary responsibility and liability for the suitability and performance of any proposed substitute item, method or procedure and will not relieve CONTRACTOR from its primary responsibility and liability for curing defective Work and performing warranty work, which the CONTRACTOR shall cure and perform, regardless of any claim the CONTRACTOR may choose to advance against the E/A or manufacturer.

6.2.5 CONTRACTOR agrees to assign to OWNER any rights it may have to bring antitrust suits against its Suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. CONTRACTOR further agrees to cooperate with OWNER should OWNER wish to prosecute suits against Suppliers for illegal price fixing.

6.3 Progress Schedule: Unless otherwise provided in Division 1, CONTRACTOR shall adhere to the Baseline Schedule established in accordance with paragraph 2.6 as it may be adjusted from time to time as provided below:

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

6.3.2 Proposed adjustments in the Progress Schedule that will change the Contract Times or Milestones shall be submitted in accordance with the requirements of Article 12. Any such proposed adjustments must be substantiated with documentation of any changes to the underlying logic of the Progress Schedule. Such adjustments may only be made by a Change Order or Time Extension Request in accordance with Article 12.

6.4 Concerning Subcontractors, Suppliers and Others:

6.4.1 Assignment: CONTRACTOR agrees to retain direct control of and give direct attention to the fulfillment of this Contract. CONTRACTOR agrees not to, by Power of Attorney, or otherwise, assign said Contract without the prior written consent of OWNER. In addition, without OWNER'S written consent, the CONTRACTOR will not subcontract the performance of the entire Work or the supervision and direction of the Work.

6.4.2 Award of Subcontracts for Portions of the Work: CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization, whether initially or as a substitute, against whom OWNER may have reasonable objection. OWNER will communicate such objections by Written Notice. If OWNER requires a change without good cause of any Subcontractor, person or organization previously accepted by OWNER, the Contract Amount shall be increased or decreased by the difference in the cost occasioned by any such change, and appropriate Change Order shall be issued. CONTRACTOR shall not substitute any Subcontractor, person or organization that has been accepted by OWNER, unless the substitute has been accepted in writing by OWNER. No acceptance by OWNER of any Subcontractor,
Supplier or other person or organization shall constitute a waiver of any right of OWNER to reject defective Work.

6.4.3 CONTRACTOR shall enter into written agreements with all Subcontractors and Suppliers which specifically binds the Subcontractors or Suppliers to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and E/A. The OWNER reserves the right to specify that certain requirements shall be adhered to by all Subcontractors and Sub-subcontractors as indicated in other portions of the Contract Documents and these requirements shall be made a part of the agreement between CONTRACTOR and Subcontractor or Supplier. Subject to and in accordance with the above requirements, the CONTRACTOR must provide and will be deemed for all purposes to have provided in its contracts with major Subcontractors or Suppliers on the Project (those contracts of more than $10,000) the following specific provision: alternative dispute resolution (paragraphs 16.2 and 16.3), which shall be mandatory in the event of a subcontractor or supplier claim and a prerequisite for the submission of any derivative claim. The CONTRACTOR’s standard subcontract form is subject to the OWNER’s review and approval. The OWNER may request and the CONTRACTOR will provide within five (5) working days a copy of any subcontract requested by the OWNER.

6.4.4 CONTRACTOR shall be fully responsible to OWNER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR’s own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or E/A to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by laws and regulations.

6.4.5 CONTRACTOR shall be solely responsible for efficiently scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR in order to avoid any delays or inefficiencies in the prosecution of the Work. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with Owner’s Representative through CONTRACTOR.

6.4.6 The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.

6.4.7 CONTRACTOR shall pay each Subcontractor and Supplier their appropriate share of payments made to CONTRACTOR not later than ten (10) Calendar Days of CONTRACTOR’s receipt of payment from OWNER. Upon request from Owner, the CONTRACTOR has two (2) Working Days to provide documentation verifying Payment to Subcontractor(s). The CONTRACTOR is required to notify the Subcontractor(s) in writing of rejection of Application for Payment within two (2) Working Days following notification by Owner. Failure of CONTRACTOR to make payments to Subcontractors or for labor, materials or equipment in accordance to this contract, may be cause to reject future Bids by the CONTRACTOR in accordance with Section 00100 9.B.4 and may be cause to reject payment in accordance with 00700 14.4.1.3.

6.4.8 To the extent allowed by Texas law, the OWNER shall be deemed to be a third party beneficiary to each subcontract and may, if OWNER elects, following a termination of the CONTRACTOR, require that the Subcontractor(s) perform all or a portion of
unperformed duties and obligations under its subcontract(s) for the benefit of the OWNER, rather than the CONTRACTOR; however, if the OWNER requires any such performance by a Subcontractor for the OWNER’s direct benefit, then the OWNER shall be bound and obligated to pay such Subcontractor the reasonable value for all Work performed by such Subcontractor to the date of the termination of the CONTRACTOR, less previous payments, and for all Work performed thereafter. In the event that the OWNER elects to invoke its right under this section, OWNER will provide notice of such election to the CONTRACTOR and the affected Subcontractor(s).

6.5 Patent Fees and Royalties:

6.5.1 CONTRACTOR shall be responsible at all times for compliance with applicable patents or copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.

6.5.2 CONTRACTOR shall pay all royalties and license fees and shall provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not a particular design, device, material, or process is specified by OWNER.

6.5.3 CONTRACTOR shall defend all suits or claims for infringement of any patent or copyright and shall save OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR’s process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event CONTRACTOR shall indemnify and save harmless OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against OWNER.

6.5.4 OWNER shall have the right to stop the Work and/or terminate this Agreement at any time in the event CONTRACTOR fails to disclose to OWNER that CONTRACTOR’s work methodology includes the use of any infringing design, device, material or process.

6.6 Permits, Fees: Unless otherwise provided in the Supplemental General Conditions, CONTRACTOR shall obtain and pay for all construction permits, licenses and fees required for prosecution of the Work.

6.7 Laws and Regulations:

6.7.1 CONTRACTOR shall give all notices and comply with all laws and regulations applicable to furnishing and performing the Work, including arranging for and obtaining any required inspections, tests, approvals or certifications from any public body having jurisdiction over the Work or any part thereof. Except where otherwise expressly required by applicable laws and regulations, neither OWNER nor E/A shall be responsible for monitoring CONTRACTOR’s compliance with any laws and regulations.

6.7.2 Maintaining clean water, air and earth or improving thereon shall be regarded as of prime importance. CONTRACTOR shall plan and execute its operations in compliance with all applicable Federal, State and local laws and regulations concerning control and abatement of water pollution and prevention and control of air pollution.

6.7.3 If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to laws or regulations, CONTRACTOR shall bear all claims, costs, losses and damages arising therefrom; however, it shall not be CONTRACTOR’s primary
responsibility to make certain that the Specifications and Drawings are in accordance with laws and regulations, but this does not relieve CONTRACTOR of CONTRACTOR's obligations under Article 3.

6.8 Taxes:

6.8.1 CONTRACTOR shall pay only those sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Texas in the performance of this public works contract.

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

6.9 Use of Premises:

6.9.1 CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by laws and regulations, right-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of or in connection with the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall indemnify, defend and hold harmless OWNER, E/A, E/A'S Consultants and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages (including court costs and reasonable attorney’s fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the work or failure to perform the Work.

6.9.2 During the progress of the Work and on a daily basis, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall, at a minimum, restore to original condition all property not designated for alteration by the Contact Documents. If the CONTRACTOR fails to clean up at the completion of the Work, OWNER may do so and the cost thereof will be charged against the CONTRACTOR.

6.9.3 CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.10 Record Documents: CONTRACTOR shall maintain in a safe place at the site, or other location acceptable to OWNER, one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.5) in good order and annotated to show all changes made during construction. These record documents together with all final samples and all final Shop Drawings will be available to OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, these record documents, samples and Shop Drawings shall be promptly delivered to Owner's Representative.
6.11 Safety and Protection:

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

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

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

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

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

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

6.11.3 Safety Representative: CONTRACTOR shall designate in writing a qualified and experienced safety representative (the "Safety Representative") at the site whose duties and responsibilities shall include safety training; identifying and mitigating hazardous conditions and unsafe work practices; and developing, maintaining and supervising the implementation of safe work practices and safety programs as deemed necessary and appropriate for the Project. The term "Safety Representative" includes any designated Safety Supervisor, Superintendent or Safety Manager. The Safety Representative shall exercise due diligence in the execution of all Project related safety duties. The Safety Representative shall report directly to a company executive, not an on site project manager. Upon request of OWNER, CONTRACTOR shall provide certifications or other acceptable documentation of the Safety Representative's qualifications. The following requirements will be effective as of September 1, 2010:

.1 The Safety Representative shall present certification of completion of the OSHA 30-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html

.2 The Safety Representative shall verify that all construction workers (defined as persons covered by a prevailing wage determination) on the job site, whether employed by the CONTRACTOR or subcontractors, have completed the OSHA 10-hour Construction Industry Training Outreach Program described at: http://www.osha.gov/dte/outreach/construction_generalindustry/construction.html. The Safety Representative must receive a certificate of training completion before allowing a worker on site and shall have all such certificates available for inspection by the OWNER.

.3 The Safety Representative shall ensure that workers, including designated competent persons, have completed all applicable OSHA specific or other training needed to perform their job assignments. Training topics applicable to the scope of the current Project may include, but are not limited to, scaffolds, fall protection, cranes, excavations, electrical safety, tools, concrete and masonry construction, steel erection, operation of motor vehicles and mechanized equipment.

.4 The Safety Representative shall post notice on the site of the Work stating that all workers shall have completed OSHA Construction Industry Training. The Owner may require, and the Safety Representative should consider providing a means of readily identifying workers who have completed the required training to monitor compliance with these requirements.

.5 The Safety Representative shall ensure that all required OSHA and Workers Compensation notices to workers are posted in English and Spanish at one or more conspicuous locations on the work site.

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

6.11.5 Emergencies:

.1 In emergencies affecting the safety or protection of persons or the Work at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work.
CONTRACTOR shall give Owner's Representative telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If Owner's Representative determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Directive or Change Order will be issued to document the consequences of such action; otherwise OWNER will not be responsible for CONTRACTOR's emergency action.

.2 Authorized agents of CONTRACTOR shall respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project site of CONTRACTOR or his agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should CONTRACTOR and/or their agent fail to respond and take action to alleviate such an emergency situation, OWNER may direct other forces to take action as necessary to remedy the emergency condition, and OWNER will deduct any cost of such remedial action from the funds due CONTRACTOR under this Contract.

.3 In the event there is an accident involving injury to any individual or damage to any property on or near the Work, CONTRACTOR shall provide to Owner's Representative verbal notification within one (1) hour and written notification within twenty-four (24) hours of the event and shall be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports, police accident reports and other documentation that describes the event. Copies of such documentation shall be provided to Owner's Representative, for OWNER’s and E/A’s records, within forty-eight (48) hours of the event. Contractor shall cooperate with OWNER on any OWNER investigation of any such incident.

6.11.6 Rest Breaks

.1 Except as provided in subsection 6.11.6.2 below, an employee performing construction activity at a construction site is entitled to a rest break of not less than ten (10) minutes for every four (4) hours worked. No employee may be required to work more than 3.5 hours without a rest break. A rest break means a break from work within working hours, excluding meal breaks, during which an employee may not work. A rest break shall be scheduled as near as possible to the midpoint of the work period.

.2 An employee is not entitled to a rest break under subsection 6.11.6.1 on any day the employee works less than 3.5 hours or spends more than half of his or her work time engaged in non-strenuous labor in a climate controlled environment.

.3 A sign describing the requirements of this Section 6.11.6 in English and Spanish shall be posted by the employer in each establishment subject to the requirement of a rest break in a conspicuous place or places where notices to employees are customarily posted, in accordance with the OWNER’s then current rules for size, content, and location of such signage.

.4 The violation of Ordinance No. 20100729-047, enacted July 29, 2010, which establishes the rest break requirements set forth above, may be enforced with criminal penalties and civil remedies, as set forth in the Ordinance.
6.11.7 If the Contractor fails to carry out the Work in accordance with the Contract Documents so that a safety violation has occurred, the Owner may order the Contractor to stop the Work or any portion thereof, until the cause for such order has been eliminated. However, the right of the Owner to stop the Work under this paragraph shall not give rise to a duty on the part of the Owner to supervise the Contractor’s Work or to control the Contractor’s means and methods or to exercise this right for the benefit of the Contractor or any other person or entity. All time lost due to Project shut down will be the Contractor’s sole responsibility, will be charged against the Contract Time, and the Contractor will be responsible for any and all expenses incurred. This provision is in addition to and supplemental to the applicable provisions of the Project’s ROCIP Safety Manual.

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

6.13 CONTRACTOR's General Warranty and Guarantee:

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

.1 abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

.2 normal wear and tear under normal usage.

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

.1 observations by Owner's Representative and/or E/A;
.2 recommendation of any progress or final payment by Owner's Representative;
.3 the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;
.4 use or occupancy of the Work or any part thereof by OWNER;
.5 any acceptance by OWNER or any failure to do so;
.6 any review of a Shop Drawing or sample submittal;
.7 any inspection, test or approval by others; or
.8 any correction of defective Work by OWNER.

6.14 INDEMNIFICATION:

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

.1 Is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and

.2 Is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of the INDEMNIFIED PARTIES hereunder or whether liability is imposed upon such INDEMNIFIED PARTY by laws and regulations regardless of the negligence of any such person or entity.

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

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

6.14.3 The obligations of CONTRACTOR under paragraph 6.14.1 shall not extend to the liability of OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or agents caused primarily by negligent preparation of maps, drawings, surveys, designs or specifications upon which is placed the applicable state-authorized design professional seal of OWNER's, E/A's or E/A's consultant's officers, directors, partners, employees or agents.

6.14.4 In the event CONTRACTOR fails to follow OWNER's directives concerning use of the site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, CONTRACTOR shall indemnify OWNER against all costs resulting from such claims.

6.14.5 In the event CONTRACTOR unreasonably delays progress of the work being done by others on the site so as to cause loss for which OWNER becomes liable, then CONTRACTOR shall indemnify OWNER from and reimburse OWNER for such loss.

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

6.16 Losses from Natural Causes: Unless otherwise specified, all loss or damage to CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, shall be sustained and borne by CONTRACTOR at its own cost and expense.
6.17 **Notice of Claim:** Should CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of OWNER or of any of OWNER's employees or agents or others for whose acts OWNER is liable, a Claim must be made to the other party within thirty (30) calendar days of the event giving rise to such injury or damage. The provisions of this paragraph 6.17 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

6.18 **Liquidated Damages:** CONTRACTOR or its Surety shall be liable for liquidated damages for the failure of the CONTRACTOR to timely complete the Work or any portion thereof within the Contract Time.

**ARTICLE 7 - OTHER WORK**

7.1 OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other contracts therefor, or have other work performed by utility owners. CONTRACTOR and OWNER agree to and shall use best efforts to cooperate and coordinate the Work with others performing work and other work related to the Project in order to avoid conflicts and delays in the Work. If CONTRACTOR believes that delay or additional cost is involved because of such action by OWNER, CONTRACTOR may make a Claim as provided in Article 11 or 12.

7.2 CONTRACTOR shall afford other contractors who are in a contract with OWNER and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of Owner's Representative and the other contractors whose work will be affected. CONTRACTOR shall promptly remedy damage wrongfully caused by CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.

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

7.4 OWNER shall provide for coordination of the activities of the OWNER's own forces and of each separate contractor with the Work of CONTRACTOR, who shall cooperate with them. CONTRACTOR shall participate with other separate contractors and Owner's Representative in reviewing their construction Progress Schedules when directed to do so. On the basis of such review, CONTRACTOR shall make any revisions to the construction Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed upon construction Progress Schedules shall then constitute the Progress Schedules to be used by CONTRACTOR, separate contractors and OWNER until subsequently revised.

7.5 Costs caused by delays or by improperly timed activities or defective construction shall be borne by the party responsible therefor.
ARTICLE 8 - OWNER’S RESPONSIBILITIES

8.1 Prior to the start of construction, OWNER will designate in writing a person or entity to act as Owner's Representative during construction. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through Owner's Representative.

8.2 OWNER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto. OWNER is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to furnishing or performing the Work. OWNER is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of OWNER to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.

8.3 OWNER is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work. CONTRACTOR acknowledges and agrees that OWNER’S direction to perform Work in accordance with the approved Progress Schedule is not a demand for acceleration or a dictation of CONTRACTOR’S means or methods.

8.4 Information or services under the OWNER's control shall be furnished by the OWNER with reasonable promptness to avoid delay in orderly progress of the Work. The OWNER shall have a reasonable amount of time to investigate site conditions, review submittals, analyze requests for changes, and to make other decisions in the orderly administration of the Contract. CONTRACTOR must notify the OWNER in writing, if the time for the investigation, review, analysis of any submittals, required for changes or otherwise required for OWNER’S decision, impacts in any way the Critical Path of the approved Progress Schedule.

8.5 The foregoing are in addition to other duties and responsibilities of the OWNER enumerated herein and especially those in respect to Article 4 (Availability of Lands; Subsurface and Physical Conditions; Reference Points), Article 7 (Other Work) and Article 14 (Payments to CONTRACTOR and Completion).

8.6 Notice of Claim: Should OWNER suffer injury or damage to person or property because of any error, omission or act of CONTRACTOR or of any of CONTRACTOR's employees or agents or others for whose acts CONTRACTOR is liable, a Claim will be made to the other party within thirty (30) calendar days of receipt of actual or constructive notice of the event giving rise to such injury or damage. The provisions of this paragraph 8.6 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

ARTICLE 9 - ENGINEER/ARCHITECT’S STATUS DURING CONSTRUCTION

9.1 E/A's Authority and Responsibilities:

9.1.1 The duties and responsibilities and the limitations of authority of E/A during construction, as set forth in the Contract Documents, may be assigned or assumed by the OWNER, but shall not be extended without written consent of OWNER and/or E/A. The assignment of any authority, duties or responsibilities to E/A under the Contract Documents, or under any agreement between OWNER and E/A, or any undertaking, exercise or performance thereof by E/A, is intended to be for the sole and exclusive benefit of OWNER and not for the benefit of CONTRACTOR, Subcontractor, Supplier, or any other person or organization, or for any surety or employee or agent of any of them.
9.1.2 E/A will not supervise, direct, control or have authority over or be responsible for CONTRACTOR’s means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. E/A is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. E/A is not responsible for CONTRACTOR’s failure to perform or furnish the Work in accordance with the Contract Documents. Failure or omission of E/A to discover, or object to or condemn any defective Work or material shall not release CONTRACTOR from the obligation to properly and fully perform the Contract.

9.1.3 E/A is not responsible for the acts or omissions of CONTRACTOR, or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.1.4 If OWNER and E/A agree, E/A will review the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered by Article 14, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.1.5 The limitations upon authority and responsibility set forth in this paragraph 9.1 shall also apply to E/A’s Consultants, Resident Project Representative and assistants.

9.2 E/A as Owner’s Representative: E/A may be designated as the Owner’s Representative under paragraph 8.1.

9.3 Visits to Site: If OWNER and E/A agree, E/A will make visits to the site at intervals appropriate to the various stages of construction as E/A deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR’s executed Work. Based on information obtained during such visits and observations, E/A will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. E/A will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. E/A’s efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, E/A will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. E/A’s visits and on-site observations are subject to all the limitations on E/A’s authority and responsibility set forth in paragraph 9.1.

9.4 Resident Project Representative: If OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in paragraph 9.1 and in the Supplemental General Conditions. OWNER may designate another representative or agent to represent OWNER at the site who is not E/A, E/A’s consultant, agent or employee.

9.5 Clarifications and Interpretations: E/A may determine that written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by Owner’s Representative and will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Amount or the Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in Article 11 or 12.
9.6 **Rejecting Defective Work:** E/A will recommend that OWNER disapprove or reject Work which E/A believes to be defective, or believes will not produce a completed Project that conforms to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

9.7 **Shop Drawings:** Refer to Division 1 for E/A's authority concerning Shop Drawings.

**ARTICLE 10 - CHANGES IN THE WORK**

10.1 **Changes:**

10.1.1 Without invalidating the Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such changes in the Work will be authorized by Change Order, Change Directive or Field Order. In the event that the OWNER and the CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another contractor and such work will be considered "Other Work" in accordance with Article 7.

10.1.2 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and CONTRACTOR shall proceed promptly, unless otherwise provided in the Change Order, Change Directive or Field Order. CONTRACTOR's proposals for changes in the Contract Amount and/or Contract Time shall be submitted within ten (10) Calendar Days of request by Owner's Representative, including impacts to the approved Progress Schedule, unless Owner's Representative grants an extension. OWNER will review each proposal and respond to CONTRACTOR within ten (10) Calendar Days. After review by OWNER, CONTRACTOR shall provide any supporting data requested by Owner's Representative within seven (7) Calendar Days, unless Owner's Representative grants an extension. OWNER will determine within seven (7) Calendar Days whether to pursue the change in Work.

10.1.3 CONTRACTOR shall not be entitled to an increase in the Contract Amount or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.3.1 and 3.3.2, except in the case of an emergency as provided in paragraph 6.11.5 or in the case of uncovering Work as provided in paragraph 13.4.

10.1.4 Except in the case of an emergency as provided in paragraph 6.11.5, a Change Order or Change Directive is required before CONTRACTOR commences any activities associated with a change in the Work which, in CONTRACTOR's opinion, will result in a change in the Contract Amount and/or Contract Times.

10.1.5 If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Amount or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

10.2 **Change Orders:**

10.2.1 OWNER and CONTRACTOR shall execute appropriate written Change Orders covering:

.1 a change in the Work;
.2 the amount of the adjustment in the Contract Amount, if any; and
.3 the extent of the adjustment in the Contract Time, if any.

10.2.2 An executed Change Order shall represent the complete, equitable, and final amount of adjustment in the Contract Amount and/or Contract Time owed to CONTRACTOR or OWNER as a result of the occurrence or event causing the change in the Work encompassed by the Change Order.

10.3 Change Directives:

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

10.3.2 If the Change Directive provides for an adjustment to the Contract Amount, the adjustment shall be based on the method provided in paragraph 11.5.

10.3.3 A Change Directive shall be effective immediately and shall be recorded later by preparation and execution of an appropriate Change Order.

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

10.4 Field Order:

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

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

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

ARTICLE 11 - CHANGE OF CONTRACT AMOUNT

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

11.2 The original Contract Amount may not be increased by more than twenty-five percent (25%) and it may not be decreased more than twenty-five percent (25%) without the consent of the CONTRACTOR to such decrease, except in the event of a termination for convenience under paragraph 15.2 or the failure of the City Council to appropriate sufficient funding for the Project, in which events it is agreed that the consent of the CONTRACTOR will not be required.

11.3 The Contract Amount shall only be changed by a Change Order. Any claim for an adjustment in the Contract Amount shall be made by Written Notice delivered by the party making the Claim to the other party promptly (but in no event later than thirty (30) calendar days) after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered within thirty (30) calendar days after Written Notice of Claim is delivered by claimant, and shall represent that the adjustment claimed covers all known amounts to which claimant is entitled as a result of said occurrence or event. If OWNER and CONTRACTOR cannot otherwise agree, all Claims for adjustment in the Contract Amount shall be determined as set out in Article 16.

11.4 Determination of Value of Work:

11.4.1 The value of any Work covered by a Change Order for an adjustment in the Contract Amount will be determined by one or more of the following methods:

.1 by application of unit prices contained in the Contract Documents to the quantities of the items involved.

.2 by a mutually agreed lump sum properly itemized and supported by sufficient substantiating data, including documentation by subcontractors performing the work, to permit evaluation.

.3 by cost of Work plus CONTRACTOR's fee for all overhead costs and profit (determined as provided in paragraph 11.5).
.4 No cost will be included in the change order for time spent preparing the change order, nor will costs be included for an estimate of time to negotiate the change order costs for machinery, tools, or equipment as described in subparagraph 11.5.3

11.4.2 Before using the method described in paragraph 11.4.1.3, OWNER and CONTRACTOR agree to negotiate a Change Order using the methods identified in paragraphs 11.4.1.1 and 11.4.1.2, as appropriate, to determine the adjustment in the Contract Amount.

11.5 Cost of Work: If neither of the methods defined in paragraphs 11.4.1.1 nor 11.4.1.2 can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Amount, then the change in the Work will be performed by Change Directive, using the Force Account method, and payment will be made as follows:

11.5.1 For all personnel, CONTRACTOR will receive actual field cost wage rates for each hour that said personnel are actually engaged in such Work, as substantiated by its certified payroll, to which will be added an amount equal to twenty-five percent (25%) of the sum thereof as compensation for CONTRACTOR's and any affected Subcontractor's total overhead and profit. No separate charge will be made by CONTRACTOR or its Subcontractor(s) for organization or overhead expenses. In no case will the rate of wage be less than the minimum shown in the Contract for a particular category. CONTRACTOR will also receive an amount equal to 55% of the wages paid personnel, excluding the 25% compensation provided above, for CONTRACTOR's and any affected Subcontractor's cost of premiums on public liability insurance, workers' compensation insurance, social security and unemployment insurance. The actual cost of CONTRACTOR's bond(s) on the extra Work will be paid based on invoices from surety. No charge for superintendence will be made unless considered necessary and ordered by OWNER.

11.5.2 CONTRACTOR will receive the actual cost, including freight charges, of the materials used and installed on such Work, to which costs will be added a sum equal to twenty-five percent (25%) thereof as compensation for CONTRACTOR's and any affected Subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.

11.5.3 For machinery, trucks, power tools, or other similar equipment (the "equipment") agreed to be necessary by OWNER and CONTRACTOR, OWNER will allow CONTRACTOR the Regional and Model Year adjusted Monthly Ownership Cost divided by 176 plus the Hourly Estimated Operating Costs as given in the latest edition of the "Rental Rate Blue Book" as published by EquipmentWatch (1-800-669-3282) for each hour that said equipment is in use on such work. The established equipment rates will be paid for each hour that the equipment is utilized in the Work. In the event that the equipment is used intermittently during the Work, full payment for an eight-hour day will be made if the equipment is not idle more than four (4) hours of the day. If the equipment is idle more than four (4) hours in a day, then payment will be made only for the actual hours worked. No additional compensation will be allowed on the equipment for CONTRACTOR's or any affected Subcontractor's overhead and profit. OWNER may accept an actual rental invoice in lieu of the method of calculation set forth in paragraph 11.5.3 for equipment rented exclusively for Force Account Work or for equipment not included in the Rental Rate Blue Book.

11.5.4 The compensation, as herein provided for, shall be received by CONTRACTOR and any affected Subcontractor as payment in full for work done by Change Directive and will include use of small tools, and total overhead expense and profit. CONTRACTOR and Owner's Representative shall compare records of work done by
Change Directive at the end of each day. Copies of these records will be made upon forms provided for this purpose by OWNER and signed by both Owner's Representative and CONTRACTOR, with one copy being retained by OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two (2) working days of presentation does not invalidate the accuracy of the record.

11.6 Unit Price Work:

11.6.1 Where the Contract Documents provide that all or part of the Work is to be unit price Work, initially the Contract Amount will be deemed to include for all unit price work an amount equal to the sum of the established unit price for each separately identified item of unit price work times the estimated quantity of each item as indicated in the Bid. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Amount. Determinations of the actual quantities and classifications of unit price work performed by CONTRACTOR will be made by Owner's Representative. Owner's Representative will review with CONTRACTOR the preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise).

11.6.2 When "plan quantity" is indicated for a Bid item, CONTRACTOR shall be paid amount specified in the Contract Documents without any measurements.

11.6.3 Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

11.6.4 A Major Item is any individual Bid item in the Bid that has a total cost equal to or greater than five percent (5%) of the original Contract Amount or $50,000, whichever is greater, computed on the basis of Bid quantities and Contract unit prices.

11.6.5 OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Amount in accordance with Article 11 if:

1. the actual quantity of any Major Item should become as much as twenty percent (20%) more than or twenty percent (20%) less than that in the Bid; or

2. CONTRACTOR presents documentation contesting accuracy of "plan quantity" and Owner's Representative verifies quantity and determines original value is in error by five percent (5%) or more;

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

ARTICLE 12 - CHANGE OF CONTRACT TIMES

12.1 Working Day and Calendar Day Contracts:

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

12.1.2 When CONTRACTOR is at fault and OWNER stops the Work, so that corrections in
the Work can be made by CONTRACTOR, no extension in time will be allowed.

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

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

.1 Changes ordered in the work which justify additional time.

.2 Failure of materials or products being at the Project site due to delays in
transportation or failures of Suppliers, which are not the result of
CONTRACTOR’s, Subcontractor’s or Supplier’s negligence. The request for an
extension of time shall be supported by a citation of acts demonstrating that
the delays are beyond CONTRACTOR’s control, including, but not limited to,
CONTRACTOR’s efforts to overcome such delays documented as follows:

a) Copy of purchase order for delayed item(s) indicating date ordered by
CONTRACTOR/ Subcontractor and date purchase order received by
Supplier.

b) If item(s) require Shop Drawings or other submittal information in
accordance with the Contract Documents, provide record of date
submittal(s) forwarded to Owner’s Representative, date submittal(s)
returned to CONTRACTOR, and date submittal(s) forwarded to Supplier.

c) Copy of document(s) from Supplier, on Supplier’s letterhead, indicating
date(s) item(s) would be ready for shipment and/or actual shipment
date(s).

d) Copies of all correspondence between CONTRACTOR / Subcontractor and Supplier indicating CONTRACTOR / Subcontractor’s efforts to expedite item(s).

e) If item(s) are being purchased by a Subcontractor, provide
correspondence, meeting notes, etc., that reflect CONTRACTOR's efforts
with the Subcontractor to expedite delivery of the item(s).

.3 When acts of OWNER, E/A, utility owners or other contractors employed by
OWNER delay progress of work through no fault of CONTRACTOR. The
CONTRACTOR will only be entitled to an extension of time for delays that
affect the Critical Path of the Work and that are not caused by the CONTRACTOR.

.4 When CONTRACTOR is delayed by strikes, lockouts, fires, losses from natural causes, or other unavoidable cause or causes beyond CONTRACTOR's control.

12.2 Calendar Day Contracts:

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

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

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

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

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

12.2.4 CONTRACTOR may receive credit in any month for Unusual Inclement Weather, and specifically for any Rain Days in that month which exceed the number of Rain Days allocated to that month, if a Claim is made in accordance with paragraph 12.1.1 and the weather event meets the definition for "Unusual Inclement Weather", and as applicable, "Rain Day" and such claimed day is a day on which Work critical to maintaining the Progress Schedule is scheduled to be performed and is otherwise capable of being performed.
ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

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

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

13.3 Tests and Inspections:

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

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

.1 for inspections, tests or approvals covered by paragraphs 13.3.3 and 13.3.4 below;

.2 that costs incurred for tests or inspections conducted pursuant to paragraph 13.4.3 shall be paid as provided in paragraph 13.4.3;

.3 for reinspecting or retesting defective Work, including any associated costs incurred by the testing laboratory for cancelled tests or standby time; and

.4 as otherwise specifically provided in the Contract Documents.

13.3.3 If laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish Owner's Representative the required certificates of inspection or approval.

13.3.4 CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and E/A's review of submittals covering materials, equipment, and mix designs to be incorporated in the Work.

13.3.5 All testing laboratories shall meet the requirements of ASTM E-329.

13.4 Uncovering Work:

13.4.1 If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of Owner's Representative, or if any Work is covered contrary to the written request of Owner's Representative, it must, if requested by Owner's Representative, be uncovered and recovered at CONTRACTOR's expense.
13.4.2 Uncovering Work as provided in paragraph 13.4.1 shall be at CONTRACTOR’s expense unless CONTRACTOR has given Owner's Representative timely notice of CONTRACTOR's intention to cover the same and Owner's Representative has not acted within five (5) working days to such notice.

13.4.3 If Owner's Representative considers it necessary or advisable that covered Work be observed, inspected or tested, CONTRACTOR shall uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Amount, and may make a Claim therefor as provided in Article 11. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Amount or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and CONTRACTOR may make a Claim therefor as provided in Articles 11 and 12.

13.5 OWNER May Stop the Work:

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

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

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

13.7 Warranty period:

13.7.1 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents (e.g. paragraph 14.11.2), any Work, including work performed after the Substantial Completion date, is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER’s written instructions:
(i) correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not defective, and

(ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom.

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

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

13.7.3 If correction of defective Work will affect the function or use of the facility CONTRACTOR shall not proceed with correction of defective Work without prior coordination and approval of OWNER.

13.7.4 The obligations of the CONTRACTOR to perform warranty work will survive the acceptance of the Work and any termination of the Contract.

13.8 Acceptance of Defective Work: If, instead of requiring correction or removal and replacement of defective Work, OWNER decides to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses and damages attributable to OWNER’s evaluation of and determination to accept such defective Work. If any such acceptance occurs prior to recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents and compensating OWNER for the diminished value of the defective Work. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER after a calculation by OWNER of the diminution in value of the defective Work.

13.9 OWNER May Correct Defective Work: If CONTRACTOR fails within a reasonable time after Written Notice of OWNER to correct defective Work, or to remove and replace rejected Work, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven (7) calendar days’ Written Notice to CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of the Owner’s Representative, significant progress has not been made during this seven (7) calendar day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR’s services related thereto, and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, its agents and employees, OWNER’s other contractors, E/A and E/A’s consultants access to the site to enable OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR’s
defective Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment:

14.1.1 No more often than once a month, CONTRACTOR shall submit to Owner's Representative for review an Application for Payment, in a form acceptable to OWNER, filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

14.1.2 Such applications shall not include requests for payment on account of changes in the Work which have been properly authorized by Change Directives but not yet included in Change Orders.

14.1.3 Such applications shall not include requests for payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason.

14.1.4 If payment is requested on the basis of materials or equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall be accompanied by such bills of sale, data and other procedures satisfactory to OWNER substantiating OWNER's title to such materials or equipment or otherwise protecting OWNER's interest. Payment on account of such materials or equipment will not include any amount for CONTRACTOR's overhead or profit or relieve CONTRACTOR of its obligation to protect and install such materials or equipment in accordance with the requirements of the Contract and to restore damaged or defective Work. If materials or equipment are stored at another location, at the direction of the OWNER they shall be stored in a bonded and insured facility, accessible to E/A and OWNER, and shall be clearly marked as property of OWNER. Title to materials delivered to the site of the Work or a staging area will pass to OWNER upon payment by OWNER without the necessity for further documentation. Risk of loss will not pass to OWNER until acceptance.

14.1.5 Where the original Contract Amount is less than $400,000, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less ten percent (10%) of amount thereof, which ten percent (10%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. Where the original Contract Amount is $400,000 or more, OWNER will pay CONTRACTOR total amount of approved Application for Payment, less five percent (5%) of amount thereof, which five percent (5%) will be retained until final payment, less all previous payments and less all other sums that may be retained by OWNER under the terms of this Agreement. In either case, if the Work is near completion and delay occurs due to no fault or neglect of CONTRACTOR, OWNER may pay a portion of the retained amount to CONTRACTOR. CONTRACTOR, at OWNER's option, may be relieved of the obligation to complete the Work and, thereupon, CONTRACTOR shall receive payment of the balance due under the Contract subject to the conditions stated under paragraph 15.2. A Subcontractor may submit a written request to the CONTRACTOR and Project Manager requesting release of retainage for work by the Subcontractor that has been completed and approved. The Project Manager will evaluate the request and if it is approved, the Project Manager will request the
CONTRACTOR to include the request for release of an appropriate amount of
retainage in the next Pay Application.

14.1.6 Applications for Payment shall include the following documentation:
   .1 updated Progress Schedule;
   .2 monthly subcontractor report;
   .3 any other documentation required under the Supplemental General Conditions.

14.2 CONTRACTOR's Warranty of Title: CONTRACTOR warrants and guarantees that title to all
Work, materials and equipment covered by any Application for Payment, whether
incorporated in the Project or not, will pass to OWNER free and clear of all Liens no later
than the time of payment to CONTRACTOR.

14.3 Review of Applications for Progress Payment:

14.3.1 Owner's Representative will, within seven (7) calendar days after receipt of each
Application for Payment, either indicate a recommendation for payment and
forward the Application for processing by OWNER, or return the Application to
CONTRACTOR indicating Owner's Representative's reasons for refusing to
recommend payment. In the latter case, CONTRACTOR shall make the necessary
corrections and resubmit the Application.

14.3.2 Owner's Representative's recommendation of any payment requested in an
Application for Payment will constitute a representation by Owner's
Representative, based upon Owner's Representative's on-site observations of the
executed Work and on Owner's Representative's review of the Application for
Payment and the accompanying data and schedules, that to the best of Owner's
Representative's knowledge, information and belief:
   .1 the Work has progressed to the point indicated; and
   .2 the quality of the Work is generally in accordance with the Contract
   Documents (subject to an evaluation of the Work as a functioning whole prior
to or upon Substantial Completion, to the results of any subsequent tests
called for in the Contract Documents, to a final determination of quantities and
classifications for unit price Work, and to any other qualifications stated in the
recommendation).

14.3.3 By recommending any such payment, Owner's Representative will not thereby be
deemed to have represented that:
   .1 exhaustive or continuous on-site inspections have been made to check the
   quality or the quantity of the Work;
   .2 examination has been made to ascertain how or for what purpose
   CONTRACTOR has used money previously paid on account of the Contract
   Amount;
   .3 CONTRACTOR's construction means, methods, techniques, sequences or
   procedures have been reviewed; or
   .4 that there may not be other matters or issues between the parties that might
   entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to
   withhold payment to CONTRACTOR.

14.4 Decisions to Withhold Payment:

14.4.1 OWNER may withhold or nullify the whole or part of any payment to such extent as
may be necessary on account of:
   .1 defective Work not remedied;
.2 third party Claims filed or reasonable evidence indicating probable filing of such Claims;
.3 failure of CONTRACTOR to make payments properly to Subcontractors for labor, materials or equipment;
.4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount;
.5 damage to OWNER or another contractor;
.6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
.7 failure of CONTRACTOR to submit a schedule of values in accordance with the Contract Documents;
.8 failure of CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;
.9 failure of CONTRACTOR to submit and update a construction Progress Schedule in accordance with the Contract Documents;
.10 failure of CONTRACTOR to maintain a record of changes on drawings and documents;
.11 failure of CONTRACTOR to maintain weekly payroll reports and, as applicable, provide copies of reports in a timely manner upon request of OWNER;
.12 failure of CONTRACTOR to submit monthly subcontractor reports;
.13 CONTRACTOR’s neglect or unsatisfactory prosecution of the Work, including failure to clean up;
.14 failure of CONTRACTOR to comply with the Austin City Code, Chapter 2-9-A, as amended, “Minority-Owned and Women-Owned Business Enterprise Procurement Program;” or
.15 failure of CONTRACTOR to comply with any provision of the Contract Documents.

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

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

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

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

14.7 Substantial Completion:

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

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

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

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

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

14.9 Final Inspection: Upon Written Notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Owner's Representative will make a final inspection with CONTRACTOR and provide Written Notice of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

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

14.10.1 Affidavit by CONTRACTOR certifying the payment of all debts and claims;

14.10.2 Three (3) complete operating and maintenance manuals, each containing maintenance and operating instructions, schedules, guarantees, and other documentation required by the Contract Documents;

14.10.3 Record documents (as provided in paragraph 6.10);

14.10.4 Consent of surety, if any, to final payment. If surety is not provided, complete and legally effective releases or waivers (satisfactory to OWNER) of all claims arising out of or filed in connection with the Work;

14.10.5 Certificate evidencing that insurance required by the Supplemental General Conditions will remain in force after final payment and through the warranty period;

14.10.6 Non-Use of Asbestos Affidavit (After Construction);

14.10.7 Subcontractor report and all other documentation necessary for evaluation of CONTRACTOR’s fulfillment of the Contract MBE/WBE or DBE goals;

14.10.8 Documentation of notice to claimants, to the extent applicable and subject to subparagraph 14.11.4; and

14.10.9 Any other documentation called for in the Contract Documents.

14.11 Final Payment and Acceptance:

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

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

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

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

.2 CONTRACTOR must provide OWNER with a copy of the receipted notice.

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

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

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

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

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.1 OWNER May Suspend Work Without Cause: At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than ninety (90)
calendar days by Written Notice to CONTRACTOR which will fix the date on which the Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Amount or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved Claim therefor as provided in Articles 11 and 12.

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

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

15.2.2 for reasonable demobilization costs;

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

15.2.4 for all claims incurred in settlement of terminated contracts with Subcontractors, Suppliers and others, including for anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity. CONTRACTOR agrees to negotiate in good faith with Subcontractors, Suppliers and others to mitigate OWNER's cost.

15.3 OWNER May Terminate With Cause:

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

  .1 if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents;

  .2 if CONTRACTOR disregards laws or regulations of any public body having jurisdiction;

  .3 if CONTRACTOR disregards the authority of Owner's Representative;

  .4 if CONTRACTOR makes fraudulent statements;

  .5 if CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;

  .6 if CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or

  .7 if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

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

15.3.2 Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR and surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability. In the event OWNER terminates Contract with cause, OWNER may reject any and all Bids submitted by CONTRACTOR for up to three (3) years after the date of such termination. These Progressive Sanctions will be administered in accordance with the City of Austin Purchasing Office Probation, Suspension, and Debarment Procedures for Vendors, which include notice and an opportunity for a hearing.

15.4 CONTRACTOR May Stop Work or Terminate: If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) calendar days by OWNER or under an order of court or other public authority, or (except during disputes) Owner's Representative fails to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER fails for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, then CONTRACTOR may, upon seven (7) calendar days' Written Notice to OWNER, and provided OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.2. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) Owner's Representative has failed to forward for processing any mutually acceptable Application for Payment within thirty (30) calendar days after it is submitted, or (except during disputes) OWNER has failed for sixty (60) calendar days after it is submitted to pay CONTRACTOR any sum finally determined by OWNER to be due, CONTRACTOR may upon seven (7) calendar days' Written Notice to OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.4 are not intended to preclude CONTRACTOR from making a Claim under Articles 11 and 12 for an increase in Contract Amount or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

15.5 Discretionary Notice to Cure: In its complete discretion, OWNER may, but is not required to, provide a Notice to Cure to CONTRACTOR and its surety to cure an event of default described above and/or an anticipatory breach of contract and, if required by OWNER, to attend a meeting with OWNER, regarding the Notice to Cure, the event of default, and/or the anticipatory breach of contract. The Notice to Cure will set forth the time limit in which the cure is to be completed or commenced and diligently prosecuted. Upon receipt of any Notice to Cure, CONTRACTOR shall prepare a report describing its program and measures to affect the cure of the event of default and/or anticipatory breach of contract within the time required by the Notice to Cure. The CONTRACTOR'S report must be delivered to OWNER at least three (3) days prior to any requested meeting with the OWNER and surety.

15.6 Bankruptcy: If CONTRACTOR declares bankruptcy or is adjudged bankrupt or makes an assignment for the benefit of creditors or if a receiver is appointed for the benefit of creditors or if a receiver is appointed by reason of CONTRACTOR'S insolvency, CONTRACTOR may be unable to perform this Contract in accordance with the Contract requirements. In such an event, OWNER may demand CONTRACTOR or its successor in
interest provide OWNER with adequate assurance of CONTRACTOR’S future performance in accordance with the terms and conditions of the Contract. If CONTRACTOR fails to provide adequate assurance of future performance to OWNER’S reasonable satisfaction within ten (10) days of such a request, OWNER may terminate the CONTRACTOR’S services for cause or without cause, as set forth above. If CONTRACTOR fails to provide timely adequate assurance of its performance and actual performance, OWNER may prosecute the Work with its own forces or with other contractors on a time and material or other appropriate basis and the cost of which will be charged against the Contract balance.

15.7 **Duty to Mitigate:** In the event of any termination or suspension under this Contract, the CONTRACTOR agrees to and shall take all reasonable actions to mitigate its damages and any and all claims which may be asserted against the OWNER.

15.8 **Responsibility during Demobilization:** While demobilizing, the CONTRACTOR will take all necessary and reasonable actions to preserve and protect the Work, the site and other property of the OWNER or others at the site.

**ARTICLE 16 - DISPUTE RESOLUTION**

16.1 **Filing of Claims:**

16.1.1 Claims arising from the circumstances identified in paragraphs 3.2, 4.1, 4.2.2, 4.2.4, 6.4.2, 6.11.5.2, 6.17, 7.5, 8.6, 9.5, 10.4.2, 13.4.3, 13.8, 13.9, 15.1, 15.2, 15.3, or 15.4, or other occurrences or events, shall be made by Written Notice delivered by the party making the Claim to the other party within thirty (30) calendar days after the start of the occurrence or event giving rise to the Claim and stating the general nature of the Claim. Notice of the amount of the Claim with supporting data shall be delivered in writing within thirty (30) calendar days after Written Notice of Claim is delivered by claimant and shall represent that the adjustment claimed covers all known amounts and/or extensions of time to which claimant is entitled.

16.1.2 Within thirty (30) calendar days of receipt of notice of the amount of the Claim with supporting data, Owner’s Representative and CONTRACTOR shall meet to discuss the Claim, after which an offer of settlement or notification of no settlement offer will be made to claimant. If claimant is not satisfied with the proposal presented, claimant shall have thirty (30) calendar days in which to: (i) submit additional supporting data requested by the other party; (ii) modify the initial Claim; or (iii) request Alternative Dispute Resolution.

16.2 **Alternative Dispute Resolution:**

16.2.1 If a dispute exists concerning a Claim, the parties agree to use the following procedure prior to pursuing any other available remedies. OWNER reserves the right to include the E/A as a party.

16.2.2 Negotiating with Previously Uninvolved Personnel: Either party may make a written request for a meeting to be held between representatives of each party within fourteen (14) Calendar Days of the request or such later period that the parties may agree to. Each party shall endeavor to include, at a minimum, one (1) previously uninvolved senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. If a previously uninvolved senior level decision maker is unavailable due to the size of the CONTRACTOR’S organization or any other reason, the CONTRACTOR shall nonetheless provide an appropriate senior level decision maker for the meeting. The purpose of this and any subsequent meetings will be good faith negotiations of the matters constituting the dispute. Negotiations shall be
concluded within thirty (30) Calendar Days of the first meeting, unless mutually agreed otherwise. This step may be waived by a written agreement signed by both parties, in which event the parties may proceed directly to mediation as described below.

### 16.2.3 Mediation:

.1 If the procedure described in 16.2.2 proves unsuccessful or is waived pursuant to its terms, the parties shall initiate the mediation process. OWNER and CONTRACTOR agree to select within thirty (30) calendar days a mediator trained in mediation skills, to assist with resolution of the dispute. OWNER and CONTRACTOR agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in this agreement prevents the parties from relying on the skills of a person who also is trained in the subject matter of the dispute and/or a contract interpretation expert. Should the parties fail to agree on a mediator within thirty (30) calendar days of initiation of the mediation process, the parties agree to ask the Travis County Dispute Resolution Center to select a qualified individual, which selection shall be binding on the parties.

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

### 16.3 Resolution of Disputes between Contractor and Subcontractor or Supplier:

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

### 16.4 Claim Calculation:

#### 16.4.1 Delay Claims:

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

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

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

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

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

.1 providing false or misleading information to the OWNER in connection with the submission of a Bid, responses to request for qualifications or Proposals, Good Faith Efforts documentation, post award compliance or other Program operations;

.2 substituting M/WBE Subcontractors without first receiving approval for such substitutions;

.3 failure to comply with the approved Compliance Plan without an approved request for a change, an approved Change Order or other approved change to the Contract;

.4 violation of any other provision of the "Minority-owned and Women-owned Business Enterprise Procurement Program";

.5 providing false or misleading information to the OWNER in connection with an application for or challenge to certification, recertification or decertification as a MBE/WBE; and

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

ARTICLE 17 – MISCELLANEOUS

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

17.2 Extent of Agreement: This Contract represents the entire and integrated agreement between the OWNER and CONTRACTOR with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral.

17.3 Cumulative Remedies: The rights and remedies available to the parties are not to be construed in any way as a limitation of any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantees or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. Specifically, the OWNER is not required to only assess liquidated damages, and OWNER may elect to pursue its actual damages resulting from the failure of the CONTRACTOR to complete the Work in accordance with the requirements of the Contract Documents.

17.4 Severability: If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding shall only effect such word, phrase, clause, sentence or provision, and such finding shall not affect the remaining portions of this Contract; this being the intent of the parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.

17.5 Independent Contractor: The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. CONTRACTOR is an independent contractor and CONTRACTOR’s services shall be those of an independent contractor. CONTRACTOR agrees and understands that the Contract does not grant any rights or privileges established for employees of OWNER.

17.6 Prohibition of Gratuities: OWNER may, by Written Notice to CONTRACTOR, terminate the Contract without liability if is determined by OWNER that gratuities were offered or given by CONTRACTOR or any agent or representative of CONTRACTOR to any officer or employee of OWNER with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such Contract. In the event the Contract is terminated by OWNER pursuant to this provision, OWNER shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by CONTRACTOR in providing such gratuities.

17.7 Prohibition Against Personal Interest in Contracts: No officer, employee, independent consultant, or elected official of OWNER who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of CONTRACTOR shall render the Contract voidable by OWNER.
17.8 OWNER’S Right to Audit:

17.8.1 Records means all records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier of CONTRACTOR, whether paper, electronic, or other media, which are in any way related to performance of or compliance with this Contract, including, without limitation:

.1 accounting records;
.2 written policies and procedures;
.3 subcontract files (including proposals of successful and unsuccessful Bidders, Bid recaps, etc.);
.4 original estimates and estimating work sheets;
.5 correspondence;
.6 Change Order files (including documentation covering negotiated settlements);
.7 back charge logs and supporting documentation;
.8 general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends;
.9 lump sum agreements between CONTRACTOR and any Subcontractor or Supplier;
.10 records necessary to evaluate: Contract compliance, Change Order pricing, and any Claim submitted by CONTRACTOR or any of its payees; and
.11 any other CONTRACTOR record that may substantiate any charge related to this Contract.

17.8.2 CONTRACTOR shall allow OWNER’S agent or its authorized representative to inspect, audit, and/or reproduce, or all three, all Records generated by or on behalf of CONTRACTOR and each Subcontractor and Supplier, upon OWNER’S written request. Further, CONTRACTOR shall allow OWNER’S agent or authorized representative to interview any of CONTRACTOR’S employees, all Subcontractors and all Suppliers, and all their respective employees.

17.8.3 CONTRACTOR shall retain all its Records, and require all its Subcontractors and Suppliers to retain their respective Records, during this Contract and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to the attention of CONTRACTOR are resolved, or as otherwise required by law, whichever is longer. OWNER’S right to inspect, audit, or reproduce Records, or interview employees of CONTRACTOR or its respective Subcontractors or Suppliers exists during this Contract, and for three (3) years after final payment, until all audit and litigation matters that OWNER has brought to CONTRACTOR’S attention are resolved, or as otherwise required by law, whichever is longer, and at no cost to OWNER, either from CONTRACTOR or any of its Subcontractors or Suppliers that may furnish Records or make employees available for interviewing.

17.8.4 CONTRACTOR must provide sufficient and accessible facilities during its normal business hours for OWNER to inspect, audit, or reproduce Records, or all three, and to interview any person about the Records.

17.8.5 CONTRACTOR shall insert these requirements in each written contract between CONTRACTOR and any Subcontractor or Supplier and require each Subcontractor and Supplier to comply with these provisions.
17.9 **Survival:** The terms and conditions of this Contract, which contemplate a period of time beyond completion or termination will survive such completion or termination and not be merged therein or otherwise terminated.

17.10 **No Waiver:** The waiver of any provision of this Contract will not be deemed to be a waiver of any other provision of this Contract. No waiver of any provision of this Contract will be deemed to constitute a continuing waiver unless expressly provided in writing, nor will a waiver of any default be deemed a waiver of any subsequent defaults of the same type. The failure at any time to enforce this Contract, whether the default is known or not, shall not constitute a waiver or estoppel of the right to do so.

17.11 **Conditions Precedent to Right to Sue:** Notwithstanding anything herein to the contrary, the CONTRACTOR will have at least 90 days to give notice of a claim for damages as a condition precedent to the right to sue on the Contract, subject to the contractual claim and alternative dispute resolution processes set forth herein.

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

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

http://www.austintexas.gov/department/contract-management

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

GENERAL CONDITIONS, SECTION 700

Change all references from the “City of Austin” to the “City of Sunset Valley”.

ARTICLE 1 - DEFINITIONS

Add the following definition:

“1.20 Engineer/Architect (E/A): Add the following:

Name: Civil Land Group, LLC
Address: 206 West Main St., Ste. 101
Round Rock, TX 78664”

Delete Section 1.49 and replace with the following:

“1.49 Working Hours

1.49.1 Working Day Contract: All Work shall be done between 8:00 a.m. and 5:00 p.m. unless authorized by Owner's Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. If night Work is authorized and conditions under CONTRACTOR's control will permit Work for a continuous period of not less than seven (7) hours between 12:00 a.m. and 11:59 p.m. it will be considered a Working Day. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.

1.49.2 Calendar Day Contract: All Work shall be done between 8:00 a.m. and 5:00 p.m. unless authorized by Owner’s Representative. However, emergency work may be done without prior permission as indicated in paragraph 6.11.5. Night Work may be revoked at any time by OWNER if CONTRACTOR fails to maintain adequate equipment and supervision for the prosecution and control of the night Work.”

ARTICLE 5 - BONDS AND INSURANCE

"5.3 Insurance

5.3.1 CONTRACTOR Provided Insurance

5.3.1.1 General Requirements.

.1 CONTRACTOR shall carry insurance in the types and amounts indicated below for the duration of the Contract, which shall include items owned by OWNER in the care, custody and control of CONTRACTOR prior to and during construction and warranty period.
.2 CONTRACTOR must complete and forward the Certificate of Insurance, Section 00650, to OWNER before the Contract is executed as verification of coverage required below. CONTRACTOR shall not commence Work until the required insurance is obtained and until such insurance has been reviewed by OWNER. Approval of insurance by OWNER shall not relieve or decrease the liability of CONTRACTOR hereunder and shall not be construed to be a limitation of liability on the part of CONTRACTOR. CONTRACTOR must also complete and forward the Certificate of Insurance, Section 00650, to OWNER whenever a previously identified policy period has expired as verification of continuing coverage.

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

.4 All endorsements naming the OWNER as additional insured, waivers, and notices of cancellation endorsements as well as the Certificate of Insurance shall indicate: City of Sunset Valley 3205 Jones Road, Sunset Valley, TX 78745.

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

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

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

.8 OWNER reserves the right to review the insurance requirements set forth during the effective period of this Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by OWNER based upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as CONTRACTOR.

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

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

.11 CONTRACTOR shall provide OWNER thirty (30) days written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicated within the Contract.
.12 If OWNER owned property is being transported or stored off-site by CONTRACTOR, then the appropriate property policy will be endorsed for transit and storage in an amount sufficient to protect OWNER's property.

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

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

a) Waiver of Subrogation endorsement CA 0444;

b) 30 day Notice of Cancellation endorsement CA 0244; and

c) Additional Insured endorsement CA 2048.

Provide coverage in the following types and amounts:

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

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

a) Waiver of Subrogation, form WC 420304; and

b) 30 day Notice of Cancellation, form WC 420601.

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

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

a) Contractual liability coverage for liability assumed under the Contract and all contracts relative to this Project.

b) Completed Operations/Products Liability for the duration of the warranty period.

c) Explosion, Collapse and Underground (X, C & U) coverage.

d) Independent Contractors coverage (Contractors/ Subcontractors work).

e) Aggregate limits of insurance per project, endorsement CG 2503.

f) OWNER listed as an additional insured, endorsement CG 2503.

g) 30 day notice of cancellation in favor of OWNER, endorsement CG 0205.

h) Waiver of Transfer of Recovery Against Others in favor of OWNER, endorsement CG 2404.

Provide coverages A&B with minimum limits as follows:

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

5.4.2 Performance Bond:

.2 Delete this paragraph.

.3 If the Contract Amount is less than or equal to $100,000, CONTRACTOR will not be required to furnish a Performance Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the following terms and conditions: CONTRACTOR shall be entitled to receive <90%> of the Contract Amount following Substantial Completion, and the remaining <10%> of the Contract Amount when the project is accepted for Final Completion by City Council or Designee.”

5.4.3 Payment Bond:

Delete Sections .1 and .2 and replace with the following

.1 If the Contract Amount exceeds $25,000, CONTRACTOR shall furnish OWNER with a Payment Bond in the form set out in Section 00620.

.2 If the Contract Amount is less than or equal to $25,000, CONTRACTOR will not be required to furnish a Payment Bond; provided that no moneys will be paid to CONTRACTOR until completion and acceptance of the Work by OWNER under the terms and conditions specified in paragraph 5.4.2.3.

ARTICLE 6 - CONTRACTOR’S RESPONSIBILITIES

6.6 Permits, Fees: Add the following:

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

None required.

6.11 Safety and Protection: Add the following to paragraph 6.11.3:

"6.11.3 At the minimum, the safety representative will be certified in personal protective equipment, hazard communication, demolition and blasting, trench/excavation, hand and power tools, welding/cutting, cranes/derricks/hoists/conveyors/, scaffolding, confined space, CPR and first aid."

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

13.7 Warranty Period: Add the following:

"13.7.5 OWNER will utilize a "Warranty Item Form" (attached at the end of this Section) for the purpose of providing Written Notice of warranty defects to CONTRACTOR. CONTRACTOR shall date, sign, complete and return the form to OWNER when the defect is corrected, including such information on or attached to the form to describe the nature of the repairs or corrections that were made. If the defect cannot be corrected in seven (7) Calendar Days, CONTRACTOR shall provide a written explanation to the Owner’s
ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 Application for Progress Payment: Delete 14.1.6.3 and replace with the following:

“.3 Contract time statement form signed by CONTRACTOR and Owner’s Representative. If CONTRACTOR does not agree with the number of accumulated days charged, CONTRACTOR shall file a Claim in accordance with Article 16.1, Filing of Claims.”

Article 17 – Miscellaneous

17.13 Contractor Evaluation: Delete this section from the contract.
**WARRANTY ITEM NO. _____**

(PROJECT NAME)

The General Conditions of the Contract require that Warranty Defects be corrected within 7 days after written notice is received.

**TO:**  
contractor name address / telephone / fax / email

**ATTENTION OF:**  

**FROM:**  
project manager name / address / telephone / fax / email

**PROJECT:**  
name / location / CIP ID number

**END OF ONE YEAR WARRANTY:**  

**SUBJECT:**  

[ ] If checked, the damage requires immediate attention. The Contractor has been called.

[ ] If checked, the Consultant has been asked to consult with the Contractor on the problem.

**PLEASE CORRECT OR REPAIR THE FOLLOWING ITEM(S):**

<table>
<thead>
<tr>
<th>DATE OF REQUEST</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>xc:</td>
<td>Project Manager</td>
</tr>
</tbody>
</table>

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

**RESPONSE FROM CONTRACTOR:**  
DATE CORRECTION WAS MADE: ____________

The Contractor must endeavor to correct the defect within 7 calendar days after written notice is given. If the defect cannot be corrected in that time, Contractor shall provide a written explanation to the Owner's Representative describing the repairs needed and the time required to complete the repairs.

**Description of corrections made:**

<table>
<thead>
<tr>
<th>DATE OF REPLY</th>
<th>SIGNATURE</th>
</tr>
</thead>
</table>

When the repair is complete, the contractor should return a copy to each of the following:

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

[ ] ___________________________ Phone No. ________________

END
1. **PAYMENT**

1.1 Classification Definitions, Building and Heavy and Highway

1.1.1 Definitions for Building Construction and Heavy and Highway classifications shall conform to the current “Dictionary of Occupational Titles” as published by the U.S. Department of Labor.

1.2 Minimum Wages

1.2.1 Workers on Project shall be paid not less than wage rates, including fringe benefits, as published by the Department of Labor (DOL) or the $15.00 minimum wage required by City of Austin Ordinance No. 20160324-015, whichever is higher. The Total Minimum Wage required can be met using any combination of cash and non-cash qualified fringe benefits provided the cash component meets or exceeds the $15.00 minimum wage required.

1.2.2 Such wage rates shall be used throughout the Contract. If a classification is to be used, which is not listed in the attached wage rates, CONTRACTOR shall submit to OWNER rates and classification proposed for use, for approval, prior to performance of the Work.

1.2.3 All laborers and mechanics working upon the Work for this Project shall be paid unconditionally and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by Secretary of Labor under the Copeland Act, Title 29 CFR, Part 3) full wages accrued and when due, computed at rates not less than wage rates bound herein pertaining to type of Work being performed. When Work is of such a nature that both Building and Heavy and Highway wage scales are incorporated into contract, CONTRACTOR shall pay wage rates to mechanics or laborers performing Work in more than one classification at the rate indicated for each classification for time actually worked as determined by area practice applicable to type (Site Construction Crafts or Building Construction Crafts) of Work being performed without regards to skill. Salaried specialists (project superintendent and administrative personnel only) in the permanent employment of CONTRACTOR do not fall under any Wage Classification. A supervisor/foreman who is not exempt under 29 CFR Part 541 and who spends more than a substantial amount of time (20 percent) in a given workweek as a laborer or mechanic must be paid the applicable Wage Rate for the classification of work performed for all hours engaged in such work as a laborer or mechanic.

1.2.4 Wage rates shall be posted by CONTRACTOR at site(s) of Work in prominent, easily accessible places where they can be seen by all workers. The following shall also be posted by the CONTRACTOR: City of Austin wage contact posters (English and Spanish), City of Austin Equal Employment Opportunity posters (English and Spanish), Workers’ Compensation Notice (English and Spanish), Texas Payday Law (English and Spanish), City Rest Break Ordinance (English and Spanish), City of Austin Non-Discrimination Statement (related to Title VI of the Civil Rights Act), and Federal Notices, as appropriate.
1.3 Overtime Requirements

1.3.1 No CONTRACTOR, Subcontractor, or Sub-subcontractor contracting for any part of contract Work which may require or involve the employment of laborers or mechanics shall require or permit any laborer or mechanic in any workweek in which he is employed on such Work, to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times their basic rate of pay for all hours in excess of forty hours in such workweek.

1.3.2 Overtime wages must be calculated using the Adjusted Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

2. APPRENTICES

2.1 Locally and Federally Funded Projects

2.1.1 The terms journeyman and apprentice apply to both union and independent workers, and are not intended to imply that these positions are union workers only.

2.1.2 Apprentices and Trainees will be permitted to work as such only when they are registered, individually, under a bonafide Apprenticeship or Trainee program registered with the Bureau of Apprenticeship and Training, United States Department of Labor. The allowable ratio of Apprentices or Trainees to journeymen in any craft classification shall not be greater than the ratio permitted to CONTRACTOR as stated in the registered apprenticeship program standards. Any employee listed on a payroll at an Apprentice or Trainee wage rate, who is not registered as above, shall be paid the wage rate provided in Contract for Work employee actually performed. CONTRACTOR, Subcontractor, or Sub-subcontractor shall furnish to OWNER written evidence of registration of his program for Apprentices and Trainees as well as of the appropriate ratios and wage rates, for the area of construction prior to using any Apprentices or Trainees on this Contract.

3. WITHHOLDING PAYMENTS

3.1 OWNER may withhold or cause to be withheld from CONTRACTOR as much of the accrued payments as necessary to pay laborers and mechanics employed by CONTRACTOR, Subcontractors, or Sub-subcontractors the amount of wages required to comply with the Contract. In the event of nonpayment of wages to laborers or mechanics working on the site of the Work of this Contract, OWNER may, after Written Notice to CONTRACTOR, take such action as may be necessary to cause suspension of any further payments or advance of funds to CONTRACTOR until such violations have ceased and until restitution has been made. Payments may also be withheld if CONTRACTOR fails to maintain weekly payroll reports or fails to provide copies in a timely manner upon request of Owner.

4. PAYROLLS

4.1 CONTRACTOR shall keep records showing:

4.1.1 The name, address and occupation of each worker employed by the CONTRACTOR or subcontractor(s) in the construction of the public work.

4.1.2 The actual per diem wages paid to each worker

4.1.3 Employee Certification. CONTRACTOR, all levels of Subcontractors shall identify in writing, the classification agreed to by all laborers and mechanics employed by
them in the execution of the Contract, and pay not less than rates specified in the attached Wage Rate Determination(s). Contractor shall prepare a completed form for the signature of Employee and a witness shall sign the form in the presence of Employee. If work performed by worker is different than the trade classification agreed upon, the worker shall be paid for that work no less than the minimum prevailing wage for that specified trade.

4.1.4 Payroll Deduction Authorization Form. CONTRACTOR, Subcontractor, and Sub subcontractor shall prepare for employee signature a payroll deduction authorization form to identify all payroll deductions excluding those required by statute, such as federal income taxes, Medicare and social security.

4.2 The record shall be open at all reasonable hours to inspection by the officers and agents of the Owner as requested. CONTRACTOR will be responsible to provide copies of records as requested by the Owner within two (2) working days. Payrolls relating to this Work shall be maintained during term of Contract and preserved for a period of three (3) years thereafter by CONTRACTOR for all laborers and mechanics working on the Work.

4.3 A Statement of Compliance, a letter signed and dated by party responsible for supervising the payment of persons employed by CONTRACTOR or subcontractor shall accompany payrolls required by Owner. The Statement of Compliance letter shall identify but is not limited to:

4.3.1 Name of signatory party and title
4.3.2 Name of project, payroll period and
4.3.3 Name of CONTRACTOR or Subcontractor

4.4 The signed letter attests that the payroll complies with 29CFR issued by the Secretary of Labor.

4.5 Federal Funding. In the event that federal funding is used:

4.5.1 Contractor and all levels of Subcontractors shall submit weekly certified payroll reports and signed wage compliance statements to the Owner’s designated office no later than seven (7) calendar days after the scheduled payday.

4.5.2 Contractors and all levels of Subcontractors shall pay all “mechanics and laborers” not less often than once per week, for work performed the previous week.

4.5.3 Submit to the Owner’s designated office Standard Form 1413, Statement and Acknowledgement, from each subcontractor prior to the subcontractor performing work on the project.

5. NONCOMPLIANCE

5.1 According to Chapter 2258 Texas Government Code Title 10A, a CONTRACTOR or subcontractor(s) who violates this section shall pay to the political subdivision on whose behalf the contract is made, $60 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the contract. A public body shall use any money collected under this section to offset the costs incurred in the administration of this chapter.
5.2 Confirmed Disciplinary action taken by CONTRACTOR against employees who provide information during an interview or investigation by the Owner on wages received, may result in suspension or debarment from consideration of award of City contracts.

6. AREA PRACTICE

6.1 Heavy and Highway Construction Rates shall be used on this Project, unless the Project consists primarily of Building Construction and Building Construction Rates are to be used.

   6.1.1 Building Construction consists generally of all aspects of construction of buildings, which are sheltered enclosures with walk-in access for the purpose of housing persons, machinery, equipment or supplies, including without limitation the installation of utilities and equipment, both above and below grade level, as well as incidental demolition, grading, utilities, paving and other site work. Buildings need not be “habitable” to be classified as Building Construction and the installation of heavy machinery and/or equipment will not generally change a Building Construction project’s classification.

   6.1.2 The determination of Building Construction Wage Rates includes all construction trades and work necessary to complete a building, regardless of the number of contracts involved, so long as all such contracts are closely related in purpose, time and place.

6.2 For projects that involve both Building Construction and Heavy and Highway trades, the following classifications shall be used:

   6.2.1 A multiple classification shall be used if Building Construction items are more than 20% of the Heavy and Highway project cost.

   6.2.2 A multiple classification shall be used if Heavy and Highway Construction items are more than 20% of the Building Construction Project cost.

6.3 Split classifications/multiple wage rate schedules: When construction work requires that an employee perform work under multiple classifications or multiple wage scales, the employer must pay that worker (at least) the highest prevailing wage or the employer payroll records must accurately set forth the times spent performing the work of each classification and under each scale. For those projects that involve both Building Construction and Heavy and Highway trades, the Heavy and Highway wage rates may only be applied to workers when engaged in site work at least five (5) feet beyond the building.

7. TEXAS OPEN RECORDS ACT

7.1 Unless covered by an exception to mandatory disclosure under the Texas Public Information Act, Chapter 552, Texas Government Code, any and all documents submitted to the City of Austin become Public Records and are, therefore, subject to public disclosure.

Wage Rates for This Project Are Attached

END
WAGE RATE DETERMINATION

Heavy and Highway County Name: TRAVIS

Wages based on DOL General Decision: TX170016 01/04/2019 TX19 and City of Austin Ordinance #20160324-015

DOL Rate column is for information only. The Total Minimum Wage Rate is derived from the Adjusted Wage Rate Required pursuant to City Ordinance, and can be met using any combination of cash and non-cash qualified fringe benefits, provided the cash component is at least $15.00/hour.

<table>
<thead>
<tr>
<th>Classification</th>
<th>DOL Rate For info Only</th>
<th>Adjusted Wage Rate Required Pursuant to City Ordinance</th>
<th>Total Minimum Wage Rate Required</th>
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<tbody>
<tr>
<td>Agricultural Tractor Operator</td>
<td>$12.69</td>
<td>$15.00</td>
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<td>Asphalt Distributor Operator</td>
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<td>$15.55</td>
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<td>Asphalt Paving Machine Operator</td>
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<td>$15.00</td>
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<tr>
<td>Asphalt Raker</td>
<td>$12.12</td>
<td>$15.00</td>
<td>$15.00</td>
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<tr>
<td>Boom Truck Operator</td>
<td>$18.36</td>
<td>$18.36</td>
<td>$18.36</td>
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<tr>
<td>Broom or Sweeper Operator</td>
<td>$11.04</td>
<td>$15.00</td>
<td>$15.00</td>
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<tr>
<td>Cement Mason/Concrete Finisher</td>
<td>$12.56</td>
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<td>Concrete Pavement Finishing Machine Operator</td>
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<td>Crane, Hydraulic, 80 tons or less</td>
<td>$18.36</td>
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<td>$18.36</td>
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<td>Crane, Lattice Boom, 80 tons or less</td>
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<td>$19.38</td>
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<td>Crawler Tractor</td>
<td>$15.67</td>
<td>$15.67</td>
<td>$15.67</td>
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<tr>
<td>Directional Drilling Locator</td>
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<td>Directional Drilling Operator</td>
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<td>$17.24</td>
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<td>Electrician</td>
<td>$26.35</td>
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<td>$26.35</td>
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<tr>
<td>Excavator 50,000 lbs. or less</td>
<td>$12.88</td>
<td>$15.00</td>
<td>$15.00</td>
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<tr>
<td>Excavator, over 50,000 lbs.</td>
<td>$17.71</td>
<td>$17.71</td>
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<td>Flagger</td>
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<td>Form Builder/Form Setter - Paving &amp; Curb</td>
<td>$12.94</td>
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<td>Form Builder/Form Setter - Structures</td>
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<td>Foundation Drill Operator, Truck Mounted</td>
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<td>Front End Loader Operator, 3CY or less</td>
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<tr>
<td>Classification</td>
<td>Wage Rate 1</td>
<td>Wage Rate 2</td>
<td>Wage Rate 3</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-------------</td>
<td>-------------</td>
<td>-------------</td>
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<tr>
<td>Laborer, Common</td>
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<td>$15.00</td>
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<tr>
<td>Laborer, Utility</td>
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<tr>
<td>Loader/Backhoe Operator</td>
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<td>$15.00</td>
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<tr>
<td>Mechanic</td>
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<td>$17.10</td>
<td>$17.10</td>
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<tr>
<td>Milling Machine</td>
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<td>Motor Grader Operator - Fine Grade</td>
<td>$18.51</td>
<td>$18.51</td>
<td>$18.51</td>
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<tr>
<td>Motor Grader Operator, Rough</td>
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<td>Painter - Structures</td>
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<td>$18.34</td>
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<td>Pipelayer</td>
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<td>$15.00</td>
</tr>
<tr>
<td>Reclaimer/Pulverizer</td>
<td>$12.88</td>
<td>$15.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>Reinforcing Steel Setter</td>
<td>$14.00</td>
<td>$15.00</td>
<td>$15.00</td>
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<td>Roller Operator, Asphalt</td>
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<td>$15.00</td>
</tr>
<tr>
<td>Roller Operator, Other</td>
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<td>$15.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>Scraper Operator</td>
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<td>$15.00</td>
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<tr>
<td>Servicer</td>
<td>$14.51</td>
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<td>$15.00</td>
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<td>Spreader Box Operator</td>
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<td>$15.00</td>
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<td>Structural Steel Worker</td>
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<td>$19.29</td>
<td>$19.29</td>
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<tr>
<td>Traffic Signal Installer/Light Pole Worker</td>
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<td>$16.00</td>
<td>$16.00</td>
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<tr>
<td>Trenching Machine Operator, Heavy</td>
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<td>$18.48</td>
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<tr>
<td>Truck Driver Tandem Axle Semi-Trailer</td>
<td>$12.81</td>
<td>$15.00</td>
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</tr>
<tr>
<td>Truck Driver, Lowboy/Float</td>
<td>$15.66</td>
<td>$15.66</td>
<td>$15.66</td>
</tr>
<tr>
<td>Truck Driver, Single Axle</td>
<td>$11.79</td>
<td>$15.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>Truck Driver, Off Road Hauler</td>
<td>$11.88</td>
<td>$15.00</td>
<td>$15.00</td>
</tr>
<tr>
<td>Truck Driver, Single or Tandem Axle Dump</td>
<td>$11.68</td>
<td>$15.00</td>
<td>$15.00</td>
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<tr>
<td>*Welders</td>
<td>$15.97</td>
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<tr>
<td>Work Zone Barricade Servicer</td>
<td>$11.85</td>
<td>$15.00</td>
<td>$15.00</td>
</tr>
</tbody>
</table>

The Wage Compliance information detailed below was excerpted from DOL General Decision TX170016 or other sources.

1. ADDITIONAL TRADE INFORMATION

Unlisted classifications needed for work not listed within the scope of the classifications listed may be added upon the advance approval of Contract Procurement. CONTRACTOR shall submit to City of Austin Contract Procurement the following: classification, a bona fide definition of work to be performed and a proposed wage with sample payrolls conforming to area practice prior to the start of the job for that type of work. Proposed trade may not be performed by any trade already listed.
2. **WAGES**

The Total Minimum Wage Rate may be met by any combination of cash wages and credible "bona fide" fringe benefits paid for by the employer. Overtime must be used in computing overtime pay. Wages must be calculated using the Total Minimum Wage Rate specified in the Wage Rate Determination or the actual basic rate of pay, whichever is higher.

City of Austin Ordinance No. 2016324-015 requires that construction workers are paid a minimum Wage of at least $15.00/hour. The cash portion of their compensation must meet or exceed this amount.

3. **PROPER DESIGNATION OF TRADE**

A work classification from the Prevailing Wage Poster for each worker must be made based on the actual type of work he/she performed on the job. In summary the work performed, not the "title" determines the correct worker classification and wage. Each worker must be paid no less than the adjusted wage rate on the wage decision for that classification regardless of his/her level of skill (exclusive of a bona fide apprentice currently registered in a DOL approved apprentice program - proof of individual registration must be supplied in advance to the City of Austin).

4. **SPLIT CLASSIFICATION**

If a firm has employees that perform work in more than one classification, it can pay the adjusted wage rates specified for each classification ONLY if it maintains accurate time records showing the amount of time spent in each classification. If accurate time records are not maintained, these employees must be paid the highest adjusted wage rate of all the classifications of work performed by each worker. Accurate time records tracking how many hours a worker performed the work of one trade and then switched to another trade must be accounted for on a daily basis and reflected on Employer Certified Payroll accordingly.

*WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

5. **WAGE DETERMINATION APPEALS PROCESS**

5.1 Has there been an initial decision in the matter? This can be:

- 1. An existing published wage determination
- 2. A survey underlying a wage determination
- 3. A Wage and Hour Division letter setting forth a position on a wage determination
matter

4 A conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in .2 and .3 should be followed.

5.2 With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determination
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

5.3 If the answer to the question in .1 is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

5.4 If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W. Washington, DC 20210

5.5 All decisions by the Administrative Review Board are final.

END
Notice to Bidders: This form, Addendum – Section 00900, is included for your information only. If an actual Addendum is issued for this project, the format shown below will be used.

ADDENDUM No. ______

Date _________________________, ______
City of Sunset Valley
Project Name City of Sunset Valley – Valley Park Erosion Control Improvements

This Addendum forms a part of Contract and clarifies, corrects or modifies original Bid Documents, dated __________________, _______. Acknowledge receipt of this addendum in space provided on bid form. Failure to do so may subject bidder to disqualification.

A. Project Manual Revisions:

B. Drawing Revisions:

This addendum consists of ____ page(s)/sheet(s).

________________________________________
Approved by OWNER

________________________________________
Approved by ENGINEER/ARCHITECT

END
PART 1 - GENERAL

1.1 Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

1.2 DESCRIPTION OF WORK:

The Work for the project consists of the installation of gabion mattresses behind the existing gabion wall for erosion control. The work also includes adding embankment to level the area receiving the gabion mattresses, seeding the area that was disturbed and installing high velocity erosion control blanket to control soil loss.

The project is located at the end of Reese Drive in the Valley Park. Care shall be taken to make sure that the work area is protected from the public during the construction. Additionally, the work area should be kept clean and to a minimum size as much as possible.

1.3 SUBMITTALS

Provide shop drawings and other information as required by Section 01300 for coordination of the work.

1.4 CONTRACTOR’S USE OF CONSTRUCTION SITE

The construction site will be in use by the public throughout the duration of contract. CONTRACTOR shall not unreasonably encumber the construction site with materials or equipment. CONTRACTOR shall assume reasonable responsibility for protection of construction site.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 Working Hours

Working hours are from 8:00 am to 5:00 pm, Monday through Friday, except on City of Sunset Valley holidays. All roadway closures shall be coordinated with the City of Sunset Valley Public Works Department and Police Department.

End
1. CONTRACTOR shall perform all layout work to transfer all controls for grades, lines, levels and measurements from a minimum of two reference points provided by OWNER. All survey work will be performed under the direct supervision of a Texas Registered Professional Land Surveyor (RPLS).

2. Within 5 work days of the Notice To Proceed date, or within 10 Working Days of initiating work based on the approved Schedule in a new area of the Project, the CONTRACTOR shall survey and stake the locations of all proposed improvements behind the curb and within the ROW (examples: manholes, storm inlets, fire hydrants, etc.), or any other improvements identified by the OWNER’S REPRESENTATIVE, for the purpose of identifying the nature and location of these improvements to the adjacent property owner(s). The OWNER’S REPRESENTATIVE will identify to the CONTRACTOR the improvements to be staked.

3. OWNER will not stake for construction and will not be on site for survey layout activities, except to perform quality control checks.

4. CONTRACTOR shall be required to set elevation hubs (blue tops) for subgrade and base course on centerline, at quarter points and curb lines or edge of pavement at intervals not exceeding 50 feet.

5. The construction plans will include horizontal and vertical control points. References to approved COA benchmarks used in establishing controls on the drawings will be provided by the Owner’s E/A. In addition, on building projects and/or projects not built within an existing public ROW, a boundary survey will be supplied together with a legal description of the property and all easements where Work will take place.

6. CONTRACTOR shall submit construction staking layout sheets sealed by a Professional Engineer or Registered Professional Land Surveyor registered in the State of Texas. CONTRACTOR shall use a qualification based selection process consistent with the Professional Services Procurement Act, Chapter 2254.004 of the Texas Government Code, when securing the services of a Professional Engineer or Registered Professional Land Surveyor. It is a violation of State Law to solicit bids for the services of a Professional Engineer or Registered Professional Land Surveyor.

6.1 Any discrepancies found with the construction documents’ dimensional layout will be corrected. CONTRACTOR shall assure that the Owner’s Representative and E/A are notified so that the appropriate actions are taken to correct the Contract drawings.

6.2 All Work shall be done to the lines, grades and elevations indicated on the drawings. Information concerning basic horizontal and vertical control points will be provided by the E/A, Civil Land Group, LLC. These points shall be used as the datum basis under this Contract.

6.3 All work to transfer all controls for grades, lines, levels, layout and measurements shall be performed under the supervision of a Texas Registered Professional Land Surveyor, provided by the CONTRACTOR. Such work shall conform to the standards for construction staking in the most recent edition of
6.4 The offset centerline stakes will be set at no greater than fifty (50) foot intervals on both sides of the right-of-way. References to lines and grades as established by the CONTRACTOR's surveyor shall be in reference to these stake lines. The CONTRACTOR is required to provide a sealed statement from his RPLS that the controls are correct and the site layout has been done by their professional staff.

6.5 The CONTRACTOR shall place grade stakes and submit construction staking layout sheets. The CONTRACTOR shall allow a minimum of ten (10) days after submission to the Owner's Representative for review of construction staking layout sheets. Construction staking layout sheets shall include, at a minimum, the information contained in the form included at the end of this section. No Work shall be performed without Owner's Representative review and return to CONTRACTOR of construction staking layout sheets. The Owner's Representative, E/A and the CONTRACTOR shall review the survey controls on the ground.

6.6 Prior to any excavation, the CONTRACTOR shall establish the elevation to top of ground at offset stakes at the distance deemed appropriate by the CONTRACTOR to preclude disturbance of offset stakes during construction. The CONTRACTOR shall set all blue tops for subgrade and base courses on centerline at quarter points, at curb lines or edge of pavement, and other points that may be indicated on the Drawings, all at intervals not to exceed 50 feet.

6.7 The CONTRACTOR shall furnish, without charge, experienced personnel and such calibrated survey equipment, tools, stakes, and other materials that the Owner's Representative may require in establishing or checking control points, or in checking survey, layout, and measurement work performed by the CONTRACTOR.

6.8 The CONTRACTOR shall keep the Owner's Representative informed in a reasonable time in advance of the times and places at which he wishes to do work, so that any checking deemed necessary by the OWNER may be done with minimum inconvenience to the E/A and minimum delay to the CONTRACTOR. Surveying will be coordinated between the Owner's Representative and CONTRACTOR in a manner convenient to both.

6.9 During layout, CONTRACTOR shall field verify the elevation and alignment of all tie-in points to existing infrastructure. This work shall be performed sufficiently in advance of construction so that any conflicts may be resolved without delay. Any work done without being properly located may be ordered removed and replaced at the CONTRACTOR's expense.

6.10 The CONTRACTOR shall carefully preserve all monuments, benchmarks, reference points, and stakes. In case of the destruction thereof, the CONTRACTOR shall bear the cost of replacement and shall be responsible for any mistake or loss of time that may be caused. Permanent monuments or benchmarks, which must be removed or disturbed, shall be protected until properly referenced for relocation. The CONTRACTOR shall furnish materials and assistance for the proper replacement of such monuments or benchmarks.
6.11 The CONTRACTOR shall satisfy himself before commencing work as to the meaning and correctness of all survey control stakes, marks, etc., and no claim will be entertained by the OWNER for or on account of any alleged inaccuracies, unless the CONTRACTOR notifies the OWNER in writing before commencing the affected Work.

7. As needed for necessary documentation of the work progress, the CONTRACTOR shall maintain and/or protect offset or survey staking for the duration of the project. Any re-staking required to meet this requirement shall be done at the CONTRACTOR’S expense.

8. This item will be subsidiary to item 340 Hot Mix Asphaltic Concrete Pavement.

End  See attached “Construction Staking Layout Sheet”
CONSTRUCTION STAKING LAYOUT SHEET

Project Name: ___________________________ Date: ___________________________
C.I.P. ID#: ____________________________ Instrument No.: _________________________
Person Recording: ________________________ Weather Conditions: __________________
Crew Members: ___________________________ General Purpose & Scope of Survey: __________________

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<th>H.I.</th>
<th>F.S.</th>
<th>LEVEL LOOP ELEVATION</th>
<th>ROD READING</th>
<th>HUB ELEVATION AT STATION</th>
<th>(TARGET) (eg., pipe invert) ELEVATION</th>
<th>C - CUT OR F - FILL</th>
<th>% GRADE</th>
<th>NOTES: INDICATE WHETHER CENTERLINE HUB OR _____ FT. OFFSET HUB</th>
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Grades, Lines and Levels/01050  Page 4 of 4
DEFINITIONS

**General**: Basic Contract definitions are included in the General Conditions, Section 00700 included herein.

**Approved**: The term approved, when used in conjunction with the Owner's Representative's action on the CONTRACTOR'S submittals, applications, and requests, is limited to the Owner's Representative's duties and responsibilities as stated in the Conditions of the Contract. A stamp reading "No Exceptions Taken" shall have the same intent as "Approved".

**Furnish**: The term furnish means supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.

**Indicated**: The term indicated refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as shown, noted, scheduled, and specified are used to help the reader locate the reference. There is no limitation on location.

**Install**: The term install describes operations at the Project site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

**Installer**: An Installer is the CONTRACTOR or another entity engaged by the CONTRACTOR, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, and similar operations. Installers are required to be experienced in operations they are engaged to perform.

**Project Site**: The space available to the CONTRACTOR for performing construction activities either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

**Provide**: The term provide means to furnish and install, complete and ready for the intended use.

**Regulations**: The term regulations includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

**Trades**: Using terms such as carpentry is not intended to imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as carpenter. It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

INDUSTRY STANDARDS

**Applicability of Standards**: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

**Publication Dates**: Comply with the standards in effect as of the date of the Contract Documents.

**Conflicting Requirements**: Where compliance with two or more standards is specified and where the standards may establish different or conflicting requirements for minimum quantities or quality levels, refer to the Owner's Representative for a decision before proceeding.

**Copies of Standards**: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
Abbreviations and Names: Trade association names, titles of general standards, and names and titles of government agencies are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries.

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<td>Steel Door Institute</td>
</tr>
<tr>
<td>SFPA</td>
<td>Southern Forest Products Association</td>
</tr>
<tr>
<td>SGCC</td>
<td>Safety Glazing Certification Council</td>
</tr>
<tr>
<td>SIGMA</td>
<td>Sealed Insulating Glass Manufacturers Association</td>
</tr>
<tr>
<td>SJI</td>
<td>Steel Joist Institute</td>
</tr>
<tr>
<td>SMACNA</td>
<td>Sheet Metal and Air Conditioning Contractors National Association</td>
</tr>
<tr>
<td>SPIB</td>
<td>Southern Pine Inspection Bureau</td>
</tr>
<tr>
<td>SPRI</td>
<td>Single Ply Roofing Institute</td>
</tr>
<tr>
<td>SSPC</td>
<td>Steel Structures Painting Council</td>
</tr>
<tr>
<td>SSPMA</td>
<td>Sump and Sewage Pump Manufacturers Association</td>
</tr>
<tr>
<td>SWI</td>
<td>Steel Window Institute</td>
</tr>
<tr>
<td>SWPA</td>
<td>Submersible Wastewater Pump Association</td>
</tr>
<tr>
<td>TCA</td>
<td>Tile Council of America</td>
</tr>
<tr>
<td>TEX TEST</td>
<td>TxDOT Laboratory Test</td>
</tr>
<tr>
<td>TIMA</td>
<td>Thermal Insulation Manufacturers Association</td>
</tr>
<tr>
<td>TPI</td>
<td>Truss Plate Institute</td>
</tr>
<tr>
<td>TxDOT</td>
<td>Texas Department of Transportation</td>
</tr>
<tr>
<td>UL</td>
<td>Underwriters Laboratory, Inc.</td>
</tr>
<tr>
<td>USDA</td>
<td>U. S. Department of Agriculture</td>
</tr>
<tr>
<td>USGBC</td>
<td>U. S. Green Building Council</td>
</tr>
<tr>
<td>USPS</td>
<td>U. S. Postal Service</td>
</tr>
<tr>
<td>WCLIB</td>
<td>West Coast Lumber Inspection Bureau</td>
</tr>
<tr>
<td>WCMA</td>
<td>Wallcovering Manufacturers Association</td>
</tr>
<tr>
<td>WIC</td>
<td>Woodwork Institute of California</td>
</tr>
<tr>
<td>WLPIA</td>
<td>Western Lath, Plaster, Drywall Industries Association</td>
</tr>
<tr>
<td>WRI</td>
<td>Wire Reinforcement Institute</td>
</tr>
<tr>
<td>WSC</td>
<td>Water Systems Council</td>
</tr>
<tr>
<td>WSFI</td>
<td>Wood and Synthetic Flooring Institute</td>
</tr>
<tr>
<td>WWPA</td>
<td>Western Wood Products Association</td>
</tr>
<tr>
<td>W.W.P.A.</td>
<td>Woven Wire Products Association</td>
</tr>
</tbody>
</table>
PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

The Contractor prepares submittals. Drawings and general provisions of Contract, including Section 00700, “General Conditions”; Section 00810, “Supplemental General Conditions”; Division 1 requirements and City of Austin Technical Specifications and Special Provisions thereto, should be used as the related documents for this requirement. Attachment 1 lists the submittals that have been identified for this project.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:

2. Contractor’s construction schedule.
3. Submittal schedule.
4. Shop drawings.
5. Product data.
6. Samples.
7. Quality assurance and quality control submittals, including calculations, mix designs and substantiating test results.

B. Administrative Submittals: Refer to other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:

1. Permits.
2. Applications for Payment.
3. Performance and Payment bonds.
4. Insurance certificates.

C. Related Sections: The following Sections contain requirements that relate to this Section:

1. Section 00700, “General Conditions”; Section 00810, “Supplemental General Conditions”; and/or Division 1, Section 01025, "Measurement and Payment" specifies requirements for submittal of the Schedule of Values.

2. Division 1, Section 01200, "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.

3. Section 00700, “General Conditions”; Section 00810, “Supplemental General Conditions”; and/or Division 1, Section 01700, "Contract Close-out" specifies requirements for submittal of Project Record Documents and warranties at project close-out.

4. Section 00700, “General Conditions” Article 6.2.4 specifies requirements for Substitutes and “Approved Equal” Items.
PART 2 - PRODUCTS - not used

PART 3 - EXECUTION

3.1 SUBMITTAL PROCEDURES

Contractor shall be responsible for the following:

A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals or resubmittals concurrently.
   a. The E/A reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.

3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
   a. Allow fourteen (14) calendar days for initial review. Allow additional time if the Engineer must delay processing to permit coordination with subsequent submittals.
   b. If an intermediate submittal is necessary, process the same as the initial submittal.
   c. Allow fourteen (14) calendar days for processing each resubmittal.
   d. No extension of Contract Time will be authorized because of failure to transmit submittals to the E/A sufficiently in advance of the Work to permit processing.

B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

1. Provide a space approximately 4 inches by 5 inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

2. Include the following information on the label for processing and recording action taken.
   a. Project name.
   b. Date.
   c. Name and address of the Contractor’s Engineer.
   d. Name and address of the Contractor.
   e. Name and address of the subcontractor.
   f. Name and address of the supplier.
   g. Name of the manufacturer.
   h. Number and title of appropriate Specification Section.
   i. Drawing number and detail references, as appropriate.

C. Number of Copies:
1. Two (2) copies of the proposed Construction schedule and subsequent revision are required.

2. Two (2) copies of the proposed Submittal schedule and subsequent revision are required.

3. Nine (9) copies of Shop Drawings, Product, Product Samples, Quality Assurance and Quality Control submittals are required.

D. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the E/A through the Owner’s Representative using a transmittal form (An example Transmittal Form is provided at the end of this section). The E/A will not accept submittals received from sources other than the Contractor.

1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor’s certification that information complies with Contract Document requirements.

2. Number transmittals in sequence for each Series of the Specifications thus: x-xxx. The number after the dash indicates the Section of the Specifications, and the number before the dash is the sequence number of the transmittal. For example, the first item submitted related to Specification Item No. 506, “Manholes” would be labeled 1-506, the second item submitted would be labeled 2-506, etc. If the submittal item relates to a Special Provision or Special Specification, use SP506 or SS5061, for example, to indicate the applicable Specification Section. Identify resubmittals with a letter of the alphabet following the original sequence number, using “A” for the first resubmittal, “B” for the second resubmittal, etc. For example, the first resubmittal of the second item submitted for Specification SP506 would be labeled 2A-SP506.

3.2 CONTRACTOR’S CONSTRUCTION SCHEDULE

A. Construction Schedule: As described in Section 2.4.2 of Section 00700 "General Conditions", prepare a fully developed Contractor’s construction schedule ("Baseline Schedule") using Microsoft Project© software unless otherwise approved by Owner's Representative. Submit Baseline Schedule prior to or at the preconstruction conference, and submit updated schedules as specified by the E/A, usually at each regularly scheduled Project Meeting and with each pay application.

1. Detail each significant construction activity and use a weekly timeframe for the schedule. Use the same breakdown of units of the Work as indicated in the "Schedule of Values."

2. With each update, revise task completion percentage and mark completed tasks.

3. Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.

4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically the critical path items and the sequences necessary for completion of related portions of the Work.

5. Indicate the phases of work in which subcontractors will be participating. Subcontractors shall be indicated by name.
6. Coordinate the Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittal Schedule, progress reports, payment requests, and other schedules.

7. Indicate substantial completion in advance of the date established for Final Completion to allow time for the E/A's procedures necessary for certification of Substantial and Final Completion.

B. Work Stages: Indicate important stages of construction for each major portion of the Work, including submittal review, testing, and installation.

C. Cost Correlation: Within the Baseline Schedule, provide cost information indicating planned and actual costs. On the appropriate task line(s), show dollar volume of Work performed as of the dates used for preparation of applications for payment. Refer to Section 00700, “General Conditions”, Article 14 Payment to Contractor and Completion for cost reporting and payment procedures.

D. Distribution: Following response to the Baseline Schedule submittal, distribute electronic copies to the E/A, subcontractors, suppliers, and other parties required to comply with scheduled dates. Keep a copy at the Project Site at all times.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

E. Schedule Updating: Revise the schedule after each meeting, event, or activity where revisions have been recognized or made and as requested by the E/A. Issue the updated schedule concurrently with the report of each meeting, or as requested by the E/A.

3.3 SUBMITTAL SCHEDULE

A. Concurrently with the development of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the initial Submittal Schedule along with the Construction Schedule, at, or prior to, the Pre-construction Conference.

1. Coordinate Submittal Schedule with the list of subcontractors, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.

2. Prepare the schedule in chronological order. Provide the following information:
   a. Scheduled date for the first submittal.
   b. Related Section number or Specification number.
   c. Submittal category (Shop Drawings, Product Data, Calculations, Test Results, or Samples).
   d. Name of the subcontractor.
   e. Description of the part of the Work covered.
   f. Scheduled date for resubmittal.
   g. Scheduled date for completion of the E/A's review.

B. Distribution: Following Owner's response to the initial submittal, print and distribute copies to the Owner’s Representative, E/A, Owner, subcontractors, suppliers, and other parties required to comply with submittal dates indicated. Keep copies at the Project Site at all times.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting, or as requested by the E/A.
3.4 CONSTRUCTION SEQUENCE PLANS

The Contractor is required to submit construction sequence plans to the City at, or prior to, the pre-construction conference for approval. The Project shall be divided into phases according to the sequence of construction given in the Drawings and traffic control plans. The Contractor shall arrange his/her work schedule to complete all Work on each phase, including street repair, any valve casting or manhole adjustments, and street overlay before moving on to the next work area.

3.5 SHOP DRAWINGS

A. Submit newly prepared information drawn accurately to scale. Highlight, circle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:
   1. Dimensions;
   2. Identification of products and materials included by sheet and detail number;
   3. Compliance with specified standards;
   4. Notation of coordination requirements; and
   5. Notation of dimensions established by field measurement.

   6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 inches by 11 inches but no larger than 24 inches by 36 inches.
   7. Do not use Shop Drawings without an appropriate stamp indicating action taken.

3.6 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, applicable certifications and performance curves.

   1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
      a. Manufacturer's printed recommendations;
      b. Compliance with trade association standards;
      c. Compliance with recognized testing agency standards;
      d. Application of testing agency labels and seals;
      e. Notation of dimensions verified by field measurement; and
      f. Notation of coordination requirements.

   2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

   3. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
      a. Do not proceed with installation until a copy of the final submission of Product Data is in the Installer's possession.
      b. Do not permit use of unmarked copies of Product Data in connection with construction.
4. Potable Water, Reclaimed Water, and Wastewater Items or Projects: The Contractor shall submit descriptive information and evidence that the materials and equipment the Contractor proposes for incorporation into the Work is of the kind and quality that satisfies the specified functions and quality. Austin Water Utility Standard Products Lists (SPL) are a part of the Specifications. Contractors shall use products specified in the Contract Documents, listed on the SPLs, or approved by AWU through the process in Section 2.4.0 of the Utilities Criteria Manual. Products contained in the SPL cannot be substituted for items shown on the Drawings, or called for in the specifications, unless approved by the E/A in conjunction with the Austin Water Utility Standards Committee. Unless otherwise specified, products current at the time of solicitation shall be installed except where an updated List has been issued to remove a product because of quality or performance issues.

3.7 SAMPLES

A. Submit full-size, fully fabricated Samples cured and finished when specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.

1. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:
   a. Specification Section number and reference;
   b. Generic description of the Sample;
   c. Sample source;
   d. Product name or name of the manufacturer;
   e. Compliance with recognized standards; and
   f. Availability and delivery time.

2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
   a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
   b. Refer to other Specification Sections for requirements of Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
   c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
   d. Samples not incorporated into the Work, or otherwise designated as the Owner's property, are the property of the Contractor and shall be removed from the site prior to Substantial Completion.

3. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.
   a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
   b. Sample sets may be used by Owner for final acceptance of the construction associated with each set.
B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

3.8 QUALITY ASSURANCE AND QUALITY CONTROL SUBMITTALS

A. Submit quality assurance and quality control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, materials test results, field testing and inspection reports, and other quality-control submittals as required under other Sections of the Specifications.

B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a certification from the manufacturer or responsible Engineer certifying compliance with specified requirements.
   1. Signature: Certification shall be signed by an officer of the corporation or other individual authorized to sign documents on behalf of the company.

C. Calculations: When required in the technical specification, calculations shall be prepared and stamped by a Professional Engineer registered in the State of Texas.

D. Concrete, Controlled Low Strength Material, Asphalt Stabilized Base and Hot Mix Asphaltic Concrete Mix Designs and Substantiating Test Data: Requirements for submittal of mix designs and substantiating test data are specified in the applicable Technical Specification Section. Each separate batch plant supplying ASB, HMAC and/or concrete shall submit mix designs to the Owner's Representative for review.

3.9 TECHNICAL SUBMITTALS REQUIRED

A. Technical submittals required include, but are not limited to, the following list. This list is provided as an aid to the Contractor, but is not intended to be all inclusive. The Contractor shall refer to the Technical Specifications for additional requirements.

<table>
<thead>
<tr>
<th>Specification</th>
<th>Type of Submittal</th>
</tr>
</thead>
<tbody>
<tr>
<td>301 - Asphalts, Oils, and Emulsions</td>
<td>Product Data</td>
</tr>
<tr>
<td>340 - Hot Mix Asphaltic Concrete</td>
<td>Material Data, Mix Designs, Test Results</td>
</tr>
</tbody>
</table>

3.10 ENGINEER/ARCHITECT'S ACTION

A. Except for submittals, for the record, or for information where action and return is not required, the E/A will review each submittal, mark to indicate action taken, and return within the time frame specified in Paragraph 3.1.A.3.

1. Compliance with specified characteristics is the Contractor's responsibility.

B. Action Stamp: The E/A will stamp each submittal with a uniform, action stamp. The E/A will mark the stamp appropriately to indicate the action taken, as follows:
   1. "Reviewed": the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.
   2. "Reviewed with Comments": the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.
3. "Revise and Resubmit" or "Rejected": do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations and resubmit without delay. Repeat if necessary to obtain different action mark.
   a. Do not use, or allow others to use, submittals marked "Revise and Resubmit" or “Rejected” at the Project Site or elsewhere where Work is in progress.

4. Other Action: Where a submittal is for information, or for record purposes, or for special processing, or for other activity, the E/A will return the submittal marked “Record Copy”, “Action Not Required” or “No Action Taken.”

C. Unsolicited Submittals: The E/A will return unsolicited submittals to the sender without action.

3.11 PREPARATION AND SUBMITTAL OF CONSTRUCTION RECORD DRAWINGS

The Owner’s Representative and the Contractor’s Superintendent will each maintain a set of bluelines noting any changes in ink during construction of the Project. The Owner’s Representative and the Contractor’s Superintendent will compare bluelines at least weekly (at a time mutually acceptable to both) to exchange information and compare notes to ensure all items installed and changes are documented. The following is a recommended minimum of items to be noted:

GENERAL
1. Notes should be sufficiently clear to allow a draftsperson to easily make the necessary changes without the need for field checks and interpretation.
2. One complete set of Construction Record bluelines will be submitted prior to the final pay request and forwarded to the Owner.

STREET RECONSTRUCTION AND OVERLAY PROJECTS
1. Location, type, and quantity of all work added or deleted from the Project including repair areas, milled areas, sidewalk, ramps, curb and gutter, etc.
2. Deviations in street, sidewalk, curb and gutter location and grades from Drawings.

WATER/WASTEWATER PROJECTS
1. Type, name and model numbers of all valves (with # of turns to open/close), air release valves, drain and fire hydrants noted at locations installed.
2. Installed locations of all assignments, appurtenances and elevations which differ from those indicated on the Drawings.
3. Pipe manufacturer type and classification noted in sufficient detail to determine location and extent of each type or classification installed.
4. Modification to any standard or special details noted.
5. Location and description of pipe closures.
6. Thrust blocking locations and restrained pipe lengths, approximate dimensions and quantities noted.
7. Location, type and quantity of all additions and deletions.
8. Changes in grade.

The above list is not intended to be complete. Any information noted which could be used for future maintenance, location and construction projects is encouraged to be noted on the bluelines.
3.12 CONSTRUCTION DIARIES

The Contractor shall prepare a daily construction diary recording as a minimum the following information concerning events at the site and submit duplicate copies to the Owner’s Representative at weekly intervals. The copies are to be signed by the project Superintendent as defined in Section 00700, Article 6.1.2.

1. Work performed;
2. Approximate count of Contractor’s personnel, by classification, on the site;
3. List by classification, of all Subcontractors, personnel and any professionals on the site that day;
4. List of all equipment on the site by make and model;
5. High and low temperatures together with general weather conditions;
6. Start time and finish time of day’s work;
7. Accidents and / or unusual events;
8. Meetings and significant decisions made;
9. Stoppages, delays, shortages and / or losses;
10. Meter readings and / or similar recordings;
11. Emergencies procedures that may have been needed;
12. Orders and requests of governing authorities;
13. Change Orders received and implemented;
14. Services connected and / or disconnected;
15. Installed equipment and / or system tests and / or startups and results;
16. Partial completions and / or occupancies; and
17. Date of substantial completion certified.
Shop Drawing Transmittal

Month XX, 2008

City of Austin
Construction Inspection Division
Public Works Department
P.O. Box 1088
Austin, Texas 78767

Project Name:  Austin Lakeside Drive
Attention:  Owner’s Representative

Enclosed are nine (9) copies of the following items for your review:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Submittal Type</th>
<th>Specification Section</th>
<th>Subcontractor/Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6” DI Pipe</td>
<td>Produce Data</td>
<td>510</td>
<td>ABC Company</td>
</tr>
<tr>
<td>2.</td>
<td>8” Resilient Seat Gate Valve</td>
<td>Product Data</td>
<td>511</td>
<td>DEF Company</td>
</tr>
</tbody>
</table>

**NOTE:** Item 1 above contains a deviation from the Specifications as indicated on the item

Submitted by:  

 XYZ Company  
 101 Ranch Road 2974  
 Austin, Texas 78759

END
PART 1 - GENERAL

1.1 Related Documents:
Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 Office at the Work Site (Job Shack)
Not Used.

3.2 Water for Construction

All water required for and in connection with the Work to be performed shall be furnished by and at the expense of the CONTRACTOR through meters installed on hydrants, except for water used in the "disinfection of potable water lines" process per Specification 510.3(29). All water used in the disinfection process shall not be metered, but rather shall be measured by calculation. Such water use does not require a meter, but a double-check valve assembly is required when connecting to a fire hydrant or a City main. CONTRACTOR shall submit a written plan for the disinfection process for review and approval by OWNER prior to commencing Work. The written plan shall include the CONTRACTOR's plan for final flushing and discharge of chlorinated water, and shall specify the quantities of potable water that will be required for the procedure and dosage plan proposed by the CONTRACTOR. Water used in the disinfection process shall be supplied by the OWNER through hydrants or connection through a City main at no charge to the CONTRACTOR for the initial disinfection procedure up to the quantities agreed to in the written plan for the disinfection process. Should the initial disinfection procedure fail to produce acceptable bacteriological sample test results, the cost of water at standard rates used for subsequent disinfection procedures shall be the responsibility of the CONTRACTOR with quantities determined through calculations.

For all water required for and in connection with the Work to be performed other than for the disinfection process, water and meters will be available from OWNER at standard rates. All costs for obtaining a water meter shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall contact the City of Sunset Valley and arrange to pick up the meter. CONTRACTOR shall install a double-check valve assembly on the fire hydrant between the hydrant and the meter, to prevent backflow in the event of pressure failure. CONTRACTOR shall supply all necessary tools, hose and pipe, and shall make necessary arrangements for securing and transporting such water and shall take water in such a manner, and at such times, that will not produce a harmful drain or decrease of pressure in the OWNER's water system. It shall be the CONTRACTOR's responsibility to make arrangements with the City of Sunset Valley for the metering and reporting of the amount of water used. Water shall not be used in a wasteful manner. Standard hydrant wrenches shall be used for opening and closing of fire hydrants. In no case shall pipe wrenches be used for this purpose. Temporary lines shall be removed when no longer required.

“If applicable, after the installation of the City of Sunset Valley's water meter(s) for the Project, the CONTRACTOR has the option to utilize the water available from this service at the CONTRACTOR's expense. An adjustment to the Contract amount will be made by Change Order at the end of the Project for the costs incurred by the City of Sunset Valley for the water.”
3.3 **Telephone Service**

CONTRACTOR shall make all necessary arrangements and pay all installation charges for telephone lines in his offices at the site and shall provide all telephone instruments. The telephone service shall be available to the Owner’s Representative for toll free calls.

3.4 **Sanitary Facilities**

CONTRACTOR shall furnish temporary sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing Work or furnishing services on the Project.

Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet shall be furnished for each 20 employees. CONTRACTOR shall enforce the use of such sanitary facilities by all personnel at the site.

3.5 **Protection of Public and Private Property**

CONTRACTOR shall protect, shore, brace, support and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by the CONTRACTOR’s operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards, parkways, and medians, shall be restored to their original condition, whether within or outside the easement/right-of-way. All replacements shall be made with new materials.

CONTRACTOR shall be responsible for all damage to streets, roads, curbs, sidewalks, highways, shoulders, ditches, embankments, culverts, bridges, or other public or private property, which may be caused by transporting equipment, materials, or men to or from the Work, whether by him or his Subcontractors. CONTRACTOR shall make satisfactory and acceptable arrangements with the owner of, or the agency having jurisdiction over, the damaged property concerning its repair or replacement or payment of costs incurred in connection with the damage.

All fire hydrants and water control valves shall be kept free from obstruction and available for use at all times.

3.6 **Tree and Plant Protection**

All trees and other vegetation which must be removed to perform the Work shall be removed and disposed of by the CONTRACTOR; however, no trees or cultured plants shall be unnecessarily removed unless their removal is indicated on the Drawings. All trees and plants not removed shall be protected against injury from construction operations.

No tree shall be removed outside of permanent easement(s), except where authorized by the E/A. Whenever practicable, CONTRACTOR shall tunnel beneath trees in yards and parking lots when on or near the line of trenching operations. Hand excavations shall be employed as necessary to prevent injury to trees. Care shall be taken with exposed roots, unearthed during construction, so that roots do not dehydrate causing tree damage.

Trees considered by the E/A to have any significant effect on construction operations are indicated on the Drawings and those which are to be preserved are so indicated.

CONTRACTOR shall take extra measures to protect trees designated to be preserved, using methods shown on the Drawings and as specified in Standard Specification Item No. 610S “Preservation of Trees and other Vegetation”.

3.7 **Security**
CONTRACTOR shall be responsible for protection of the site, and all Work, materials, equipment, and existing facilities hereon, against vandals and other unauthorized persons.

No claim shall be made against OWNER by reason of any act of an employee or trespasser, and CONTRACTOR shall make good all damage to the OWNER's property resulting from CONTRACTOR's failure to provide security measures as specified.

Security measures shall be at least equal to those usually provided by OWNER to protect existing facilities during normal operations, and shall also include such additional security fencing, barricades, lighting, and other measures as required to protect the site. When required, the CONTRACTOR shall provide a security plan to the OWNER for review as to appropriateness of the security measures proposed.

3.8 Access Roads

CONTRACTOR shall establish and maintain temporary access roads to various parts of the site as required to complete the Project. Such roads shall be available for the use of all others performing Work or furnishing services in connection with the Project.

3.9 Parking

CONTRACTOR shall provide and maintain suitable parking areas for the use of all construction workers and others performing Work or furnishing services in connection with the Project, as required, to avoid any need for parking personal vehicles where they may interfere with public traffic, the OWNER's operations, or construction activities.

3.10 Dust Control

Dust Control during construction of this Project shall conform to Standard Specifications Item No. 220S, "Sprinkling for Dust Control". No direct payment will be made for dust control. Dust Control shall be considered subsidiary work relating to various Bid items of the Contract.

3.11 Temporary Drainage Provisions

CONTRACTOR shall be responsible for providing for the drainage of stormwater and such water as may be applied or discharged on the site in performance of the Work. CONTRACTOR shall obtain E/A approval for temporary drainage facilities which will handle, carry through, or divert around his Work all drainage flow, including storm flow and flows created by construction activity, to prevent silting of waterways or flooding damage to the property and adjacent property.

3.12 Erosion Control

CONTRACTOR shall prevent erosion of soil on the site and adjacent property resulting from his construction activities. Effective measures shall be initiated prior to the commencement of clearing, grading, excavation, or other operations which will disturb the natural protection.

CONTRACTOR shall use controls found in "Environmental Criteria Manual" or developed from successful techniques elsewhere as approved by E/A. Siltation and/or sedimentation controls shall include dams, berms, and dikes as recommended in the "Environmental Criteria Manual".

3.13 Pollution Control

CONTRACTOR shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and the substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures shall be taken by CONTRACTOR to prevent such materials from entering any drain or watercourse.
CONTRACTOR shall observe the rules and regulations of the State of Texas and agencies of the U.S. Government prohibiting the pollution of any lake, stream, river, or wetland by the dumping of any refuse, rubbish, dredge material, or debris therein.

CONTRACTOR is specifically cautioned that disposal of materials into any water of the State must conform to the requirements of the Texas Commission on Environmental Quality (TCEQ), and any applicable permit from the U.S. Army Corps of Engineers.

3.14 Noise Control
CONTRACTOR shall comply with the City of Sunset Valley’s Noise Ordinance. CONTRACTOR shall take reasonable measures to avoid unnecessary noise. Such measures shall be appropriate for the normal ambient sound level in the area during working hours. All construction machinery and vehicles shall be equipped with practical sound-muffling devices, and operated in a manner to cause the least noise consistent with efficient performance of the Work.

3.15 CIP Sign
CONTRACTOR shall erect install and maintain CIP signs as specified. Signs shall be constructed in accordance with City Standard Specification Item No. 802S “Project Signs,” as indicated on the Drawings.

3.16 Fences
All existing fences affected by the Work shall be maintained by the CONTRACTOR until completion of the Work. Fences which interfere with construction operations shall not be relocated or dismantled until written permission is obtained from the owner of the fence, and the period the fence may be left relocated or dismantled has been agreed upon. Where fences must be maintained across any construction easement, adequate gates shall be installed. Gates shall be kept closed and locked at all times when not in use.

Upon completion of the Work across any tract of land, CONTRACTOR shall restore all fences to preconstruction, or to a better, condition and to their preconstruction location.

3.17 Mail Boxes
CONTRACTOR shall remove, reset temporarily, and relocate permanently all mail boxes that are within construction site limits conforming to requirements of United States Postal Service. Mailboxes shall not be laid on the ground, but shall be temporarily reset the same day as removed. Payment for removing and resetting of mail boxes will not be paid for directly, but will be considered subsidiary to the various Bid items. Any damage to mail boxes or posts shall be the responsibility of the CONTRACTOR.

3.18 Emergency Facilities
Free access shall be maintained at all times to fire lanes and emergency and utility control facilities such as fire hydrants, fire alarm boxes, police call boxes, and utility valves, manholes, junction boxes, etc. In the event that it is necessary to make one of these facilities temporarily inaccessible, CONTRACTOR shall obtain approval of such action and schedule of Work from the OWNER. CONTRACTOR shall also provide at least 24 hours prior notice to the Fire Department, Police Department, and City Department governing the affected utility. The same Department(s) shall be promptly notified by the CONTRACTOR when such facilities are placed back in unobstructed service.

3.19 Notification of Owners
Unless otherwise indicated, the OWNER will notify property owners abutting the right-of-way of impending construction. The CONTRACTOR shall exercise diplomacy and tact with individual property owners.

3.20 Maintenance of Traffic
CONTRACTOR shall conduct his Work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways, and walks whether public or private, the CONTRACTOR shall provide and maintain suitable safe bridges, detours or other temporary measures to accommodate public and private travel, and shall provide reasonable notice to owners of private drives before interfering with them. Such maintenance of traffic will not be required when CONTRACTOR has obtained written permission from the owner and the tenant of the private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point. A copy of the initial written permission shall be provided to the Owner’s Representative.

Safety and conveyance of traffic shall be regarded as prime importance. Unless otherwise directed, all portions of streets associated with this Project shall be kept open and provided a dust free, smooth and comfortable ride to traffic. It shall be the responsibility of the CONTRACTOR to ensure that two-way traffic may safely bypass the construction site and that access is provided to abutting private property. In making open cut street crossings, the CONTRACTOR shall not block more than one-half of the street at one time without approval of the OWNER. Whenever possible, CONTRACTOR shall widen the shoulder on the opposite side to facilitate traffic control. Temporary surfacing shall be provided as necessary on shoulders.

Prior to beginning Work, CONTRACTOR shall designate, in writing, a competent person who will be responsible and available on the Project site, or in the immediate area, to ensure compliance with the traffic control plan. CONTRACTOR shall provide documentation to demonstrate the sufficient training in Traffic Control for his competent person. Owner will designate a qualified person to observe implementation and who will have authority to assure compliance with the traffic control plan.

The CONTRACTOR shall perform the necessary cleanup and finishing immediately after all or a portion of the Work is completed. When the Work includes paving operations, the entire site shall be kept clean to facilitate placement of required traffic control devices. Temporary and permanent striping lay-out shall be approved by the Transportation Department prior to placement, when included in the Work.

1. **Detours**

Where indicated on the traffic control plan CONTRACTOR shall erect and maintain detours around construction activities. Should CONTRACTOR desire to propose a detour, not already included in the traffic control plan, it shall be his responsibility to prepare a revised traffic control plan showing the detour, and obtain approval of the revised traffic control plan from the Transportation Department, prior to implementation of the detour. The Transportation Department has final authority as to the acceptability of any proposed revisions to the traffic control plan. The CONTRACTOR shall bear all costs for revising the traffic control plan and for maintaining the proposed detour.

2. **Barricades and lights**

CONTRACTOR shall place and maintain in good condition, standard barricades at each end of the Project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Barricades and warning signs shall be in accordance with the Texas Manual on Uniform Traffic Control Devices (MUTCD) and City of Austin Standard Specification Item No. 803S, “Barricades, Signs and Traffic Handling”. Signs, barricades, and warning devices informing the public of construction features will be placed and maintained by the CONTRACTOR, who shall be solely responsible for their maintenance. The decision to use a particular device at a particular location as indicated in the traffic control plan or as determined by the CONTRACTOR, shall be the sole responsibility of the CONTRACTOR.
All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions, such as material piles and equipment shall be provided with similar warning signs and lights.

All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on, or along side, public streets and highways shall cause a minimum obstruction and inconvenience of the traveling public.

END
**PART 1 - GENERAL**

1.1 Related Documents:

Drawings and general provisions of Contract, including General Conditions, Section 00700, and Supplemental General Conditions, Section 00810, and Division 1 requirements.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION**

3.1 General

CONTRACTOR shall maintain reasonable local vehicular and pedestrian dust free traffic, including use of driveways, to proceed safely with minimum inconvenience, except during actual construction operations. CONTRACTOR provided flaggers shall assist traffic when a street is operating under a single lane. Two-way traffic shall be maintained at all other times unless otherwise authorized by Owner.

CONTRACTOR shall provide, at the work zone location during temporary traffic control installation, a designated Competent Traffic Control Person to ensure compliance with the traffic control plans and the provisions of the Contract. Training Certificates for the designated Competent Person shall be provided with submittals at the Precon. Training certificates for competent persons shall be good for four (4) years from the date of training. After such time the competent person must show that additional training or re-certification has been completed to maintain competent person status.

CONTRACTOR shall maintain a smooth and safe ride for traffic by placing steel plates with Asphalitic concrete berms, temporary fill or bridging and temporary surfacing with cold or hot-mix Asphalitic concrete paving in accordance with applicable City Standards.

Sidewalks shall not be obstructed, except by special permission of Owner or E/A. Access to private dwelling and to commercial establishments shall be provided at all times.

CONTRACTOR shall plan and execute his operations in a manner that will cause a minimum interference with traffic. The CONTRACTOR shall place and maintain in good condition, standard barricades at each end of the Project and at other locations where traffic is rerouted or blocked from using regular traffic lanes. Barricades and warning signs shall be in accordance with Texas Manual on Uniform Traffic Control Devices (MUTCD) and the City of Austin Transportation Criteria Manual.

Signs, barricades and warning devices informing public of construction features shall be placed and maintained by the CONTRACTOR who shall be solely responsible for their maintenance.

Unless otherwise specified elsewhere in Division 1, neither explosives nor blasting shall be permitted on this Project.

3.2 Traffic Control

3.2.1 It shall be the sole responsibility of the CONTRACTOR to furnish, install, maintain and remove barricades, detour signs, warning signs, lights and all regulatory traffic control devices of the size and type specified, at locations indicated, or as directed or approved by the OWNER in accordance with the Texas Manual on Uniform Traffic Control Devices, (MUTCD), Part VI, Traffic Control for Street and Highway Construction and Maintenance Operations and the City of Austin Transportation Criteria Manual. Upon phase completion, the Contractor shall immediately revise the
3.2.2 Throughout the life of the Contract, all existing roads and Traffic Control devices included in the Work shall be maintained by the CONTRACTOR to a condition, in the opinion of the OWNER, which is equal to or better than that which existed when Work commenced. Maintenance of existing roads and devices shall take priority over all other Work items and shall be subject to a seven-day-a-week, 24-hours-per-day time frame. The CONTRACTOR shall provide a smooth and safe riding surface for all vehicles along the route of this Project. This could include, but not be limited to, small cars, motorcycles, mopeds and bicycles. If the condition of the street surface deteriorates, for any reason, CONTRACTOR shall take necessary steps to insure immediate restoration.

3.2.3 During construction of streets, drainage, and utility projects, if conditions of existing street surface require maintenance to upgrade from their state when the Work began, a separate pay item may be included in Bid. Otherwise, maintenance work will not be paid for directly but will be considered subsidiary to various Bid items of this Contract.

3.2.4 In the event that CONTRACTOR fails, in opinion of OWNER, to maintain a smooth surface for public comfort, fails to provide ingress and egress to private property, and/or does not provide and maintain proper traffic control devices, OWNER may provide these services and deduct any cost thereof, including overtime and administrative expenses, from all estimates thereafter due the CONTRACTOR. Such action by the OWNER shall not relieve the CONTRACTOR of his liability to protect the public at construction site. Owner may also assess an investigation fee, as established by separate Fee Ordinance, for violations resulting in more than one deficiency report issued to Contractor.

3.2.5 A permit must be obtained from Texas Department of Transportation (TxDOT), prior to Work being performed on state highway routes passing through the City.

3.2.6 CONTRACTOR shall notify the Owner’s Representative, Police Department, Fire Department, EMS, and Right of Way Management Division at least seven Calendar Days in advance of beginning proposed Work, with intention to close or partially block any street or any part thereof, or of any construction affecting free flow of traffic. The CONTRACTOR shall plan and adequately provide barricades and warning devices. The same parties shall be notified when normal traffic flow is restored.

3.2.7 Should the CONTRACTOR, in his operations, reduce an existing two-way roadway to less than 20 feet in width, CONTRACTOR shall provide a route through or around the narrowed area as approved by Owner or E/A.

3.2.8 The CONTRACTOR’s Flaggers shall be required any time it is necessary for the CONTRACTOR’s equipment to move into or across an open traffic lane, or at other such times as directed by the Owner’s Representative. A flagger shall be utilized to aid exit of hauling equipment from open traffic lanes to the Work area, and entry of hauling equipment from Work area to open traffic lanes. Flaggers shall be dressed and conduct operations in accordance with Texas Manual on Uniform Traffic Control Devices and the Transportation Criteria Manual. Flagging operations shall be the sole responsibility of the CONTRACTOR.

3.2.9 The CONTRACTOR and Subcontractors shall confine their activities to the immediate area of the construction site and provide the following:

a. Appropriate temporary fences, barricades, and/or Metal Beam Guard Fence if required, for site work involving excavation, utility extensions, remote construction work or other circumstances involving safety of public or protection of the work in progress.
b. Warning lights at open trenches, excavations, etc., during hours from dusk to dawn each day. Protection of structures, utilities, sidewalks, pavements, and other facilities immediately adjacent to excavations, from damages caused by settlement, lateral movement, undermining, washout and other hazards.

3.3 Spoil Disposal

CONTRACTOR may make other arrangements for spoil disposal subject to E/A evaluation of the CONTRACTOR-supplied proof that the Owner(s) of the proposed site(s) has a valid fill permit issued by the appropriate governmental agency. Finally, the CONTRACTOR shall submit a haul route plan including a map of the proposed route(s) for the E/A and Owner’s approval.

3.4 Restoration

3.4.1 In order to minimize environmental and potential flood impacts, the sum of the amount of trench opened in advance of the completed line and the amount of trench left unfilled at any time shall be restricted to one (1) full block or 300 linear feet, whichever is less.

3.4.2 Restoration shall be an on-going process during construction operations and shall immediately precede completion of construction of each successive section of the line, which shall not exceed 1,200 linear feet without approval of the E/A.

3.5 Street Markers and Traffic Control Signs

It shall be responsibility of the CONTRACTOR to remove, preserve and reset, as required, Street Marker and Traffic Control Signs that are within construction limits to the line and heights as described in Texas Manual on Uniform Traffic Control Devices before any sidewalks or street excavation is begun. Signs shall not be laid on the ground. No payment will be made for this work but shall be considered subsidiary to the various Bid items. Traffic Sign Activity Section of the Transportation Department (457-4850) shall be notified a minimum of five Working Days prior to completion of the Project so that signs may be checked for damage. Any damage to signs or posts shall be paid for by the CONTRACTOR.

3.6 Burning Permit

Open burning within City limits will not be allowed. Trench burning shall require a permit from the Fire Marshal. Burning permits outside City limits shall be obtained from the appropriate authority.

The CONTRACTOR shall secure and pay for all burning permits.

3.7 Driveways

Unless otherwise indicated, the approach grade of existing driveways shall be modified as indicated and as directed by the Owner’s Representative. The OWNER will contact property owners whose driveways require grade modification beyond street right-of-way and the OWNER will obtain their concurrence for approach grade modification. Within the right-of-way, all driveways shall be replaced with concrete driveways. Outside the right-of-way, when approach grade modifications are required, flexible base shall be placed by the CONTRACTOR to resurface existing dirt or gravel driveways; asphalt and concrete drives shall be replaced in kind by the CONTRACTOR. Excavation, Flexible Base, Portland Cement Concrete and Asphaltic Concrete, used for driveways as prescribed above shall not be measured for payment but shall be considered subsidiary to various Bid items in the Contract unless payment is included as a separate Contract pay item.

3.8 Removal or Relocation of Fences and Sprinkler Systems
Removal or relocation of privately owned fences and sprinkler systems not specified in Bid, and within public right-of-way is the primary responsibility of the property owner. OWNER will cause property owners to be aware of any known conflicts and encourage them to make desired adjustments in advance of construction. In the event the property owner does not, or will not, make adjustments necessary for construction of improvements to be made under this Contract, CONTRACTOR, after receiving written approval from the OWNER, shall remove those portions that interfere with the Work, as follows:

3.8.1 Fences shall be disassembled, by hand, into hand manageable sizes and placed on the private property.

3.8.2 For sprinkler systems, the CONTRACTOR, after assuring that electrical and/or mechanical controls are disconnected, shall remove sprinkler heads, valves, controls, and any other miscellaneous items, including distribution pipe, or wire, saw cut from the system. The CONTRACTOR shall present these materials to the property owner. Where piping is cut, the pipe shall be permanently capped or plugged, unless otherwise directed by the OWNER.

Work for removal or relocation of fences and sprinkler systems shall not be paid for directly but shall be subsidiary to the various Bid items.
ARTICLE 1 - GENERAL

1.1 RELATED DOCUMENTS

The following documents are a part of this section:

All documents in Bidding Requirements, Contract Forms and Conditions of the Contract.

Other sections of Division 1 - General Requirements apply to this section.

1.2 DESCRIPTION AND INTENT OF THE WORK

No asbestos containing material (ACM) shall be brought onto the Project site, and/or incorporated into the Project construction without the written consent of the OWNER. Any asbestos containing material found at any time including after contract completion, to have been brought onto the site or incorporated into the Project construction by the CONTRACTOR, or any Subcontractors, Sub-Subcontractors or Suppliers, shall be removed and disposed of in accordance with the then current governmental regulatory standards.

All costs associated with the inspection, sampling, testing, removal and disposal of ACM as described above shall be paid by the CONTRACTOR.

1.3 DEFINITIONS

ASBESTOS: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite) cummingtonite-grunerite (amosite), anthophyllite, actinolite and tremolite.

ASBESTOS CONTAINING MATERIAL (ACM): Any material containing more than one percent (1%) by weight of asbestos of any type or mixture of types.

ASBESTOS CONTAINING BUILDING MATERIAL (ACBM): Any material used in the construction of, or incorporated into the construction of, any building that contains more than one percent (1%) by weight of asbestos of any type or mixture of types.

MSDS: A material safety data sheet (MSDS) is a form containing data regarding the properties of component substances that comprise a manufactured product. They are a basic hazard communication tool that gives details on chemical and physical dangers, safety procedures, and emergency responses for chemicals.

1.4 QUALITY ASSURANCE

PROHIBITION OF ASBESTOS CONTAINING MATERIALS

The E/A has been instructed to not permit any asbestos containing materials to be specified, requested or approved for use in conjunction with this Project.
ASBESTOS CONTAINING MATERIALS PROHIBITED FROM SITE

No asbestos containing materials will be permitted as part of the Project construction. The following list is intended to be used as a general guide to show which types of materials are suspected to contain asbestos:

- Cement Pipes
- Cement Wallboard
- Cement Siding
- Asphalt Floor Tile
- Vinyl Floor Tile
- Vinyl Sheet Flooring/vinyl wall coverings
- Flooring Backing
- Construction Mastics (floor tile, carpet, ceiling tile, etc.)
- Acoustical Plaster
- Decorative Plaster / stucco
- Textured Paintings/Coatings
- Ceiling Tiles and Lay-in Panels
- Spray-Applied Insulation
- Blown-in Insulation
- Fireproofing Materials
- Taping Compounds (thermal)
- Packing Materials (for wall/floor penetrations)
- High Temperature Gaskets
- Laboratory Gloves
- Fire Blankets
- Fire Curtains
- Elevator Equipment Panels
- Elevator Brake Shoes
- HVAC Duct Insulation
- Boiler Insulation
- Breeching Insulation
- Ductwork Flexible Fabric Connections
- Cooling Towers
- Pipe Insulation (corrugated air-cell, block, etc.)
- Heating and Electrical Ducts
- Electrical Panel Partitions
- Electric Cloth
- Electric Wiring Insulation
- Chalkboards
- Roofing Shingles / tiles / membranes
- Roofing Felt
- Roof Coatings
- Base Flashing
- Thermal Paper Products
- Fire Doors
- Caulking/Putties
- Adhesives / mastics
- Wallboard
- Joint Compounds
- Spackling Compounds
- Laboratory hoods/tabletops
- CMU block fill materials

If any of these suspect materials are specified for use on the Project, and if they do not have specific labelling identifying them as asbestos free, then the CONTRACTOR shall notify the OWNER immediately. Laboratory analysis of the material by an OWNER-approved laboratory shall be performed at CONTRACTOR's expense in order to warrant that the material does not contain asbestos. A copy of the package labelling or results of laboratory testing must be provided to the OWNER prior to inclusion of the specified material during construction. Contractor's construction submittals must include MSDSs for all new materials used in construction of buildings, facilities and infrastructure.

1.5 SUBMITTALS

NON-USE OF ASBESTOS AFFIDAVITS

At the time that the CONTRACTOR signs the Agreement, they shall sign a Non-Use of Asbestos Affidavit (Contractor Prior to Construction), Contract Document 00680. This Affidavit certifies that the CONTRACTOR agrees that they will not allow any asbestos containing materials to be incorporated into the construction of the Project or allow any asbestos containing building materials on the site for which the OWNER has not given prior written approval.
Prior to final payment, the CONTRACTOR will provide to the OWNER a Non-Use of Asbestos Affidavit (Contractor After Construction), Contract Document 00681. This Affidavit certifies that the CONTRACTOR did not allow asbestos containing materials to be incorporated into the construction or allowed any asbestos containing building materials on the site for which the OWNER of the Project did not give prior written approval.

ASBESTOS CONTAINING MATERIALS: When any asbestos containing materials are used on the Project, provide the following information:

A detailed description of the material containing the asbestos.

The type and percent of asbestos contained in the material.

The quantity of the materials used, including the square footage, or in the case of pipe insulation, the size and linear footage.

A drawing showing the exact location of any asbestos containing materials.

Final payment shall be withheld until the above described Affidavits, submittals and/or information are received and approved.
<table>
<thead>
<tr>
<th>Document Number</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>102S 08/20/07</td>
<td>Clearing and Grubbing</td>
</tr>
<tr>
<td>120S 09/26/12</td>
<td>Channel Excavation</td>
</tr>
<tr>
<td>132S 08/0/07</td>
<td>Embankment</td>
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<td>594S 09/26/12</td>
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<td>605S 09/21/07</td>
<td>Soil Retention Blanket</td>
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<tr>
<td>609S 01/04/16</td>
<td>Native Seeding and Planting for Restoration</td>
</tr>
<tr>
<td>620S 01/04/16</td>
<td>Filter Fabric</td>
</tr>
</tbody>
</table>

**City Standard Technical Specifications**
ITEM NO. 102S - CLEARING AND GRUBBING 8-20-07

102S.1 - Description

This item shall govern the removal and disposal of all trees, stumps, brush, roots, shrubs, vegetation, logs, rubbish and other objectionable material.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text the inch-pound units are given preference followed by SI units shown within parentheses.

102S.2 - Submittals

The submittal requirements of this specification item may include:

A. A permit when utility adjustments are made in the right-of-way, and

B. A plan for removal and deposition of all clearing and grubbing materials and debris.

102S.3 - Construction Methods

Prior to commencement of this work, all required erosion control and tree protection measures indicated on the Drawings shall be in place. The existing utilities shall be located and protected as specified in the Standard Contract Documents, Section 00700, “General Conditions” and/or indicated on the Drawings. A permit shall be required when utility adjustments are to be made in preparation for construction in the right-of-way, as specified in Section 5.2.0 of the City of Austin Utilities Criteria Manual.

Areas within the construction limits indicated on the Drawings shall be cleared of all trees, stumps, brush, etc., as defined in section 102S.1; except trees or shrubs scheduled for preservation which shall be carefully trimmed as directed, in accordance with Item No. 610S, "Preservation of Trees and Other Vegetation" and shall be protected from scarring, barking or other injuries during construction operations. All exposed cuts over 2 inches (50 millimeters) in diameter, exposed ends of pruned limbs or scarred bark shall be treated with an approved asphalt material within 24 hours of the pruning or injury.

Construction equipment shall not be operated nor construction materials stockpiled under the canopies of trees, unless otherwise indicated on the Drawings and/or specified in the Contract Documents. Excavation or embankment materials shall not be placed within the drip line of trees until tree wells are constructed.

Within the construction limits or areas indicated, all obstructions, stumps, roots, vegetation, abandoned structures, rubbish and objectionable material shall be removed to the following depths:

1. In areas to receive 6 inches (150 mm) or more embankment, a minimum of 12 inches (300 mm) below natural ground.

2. In areas to receive embankment less than 6 inches (150 mm), a minimum of 18 inches (450 mm) below the lower elevation of embankment, structure or excavation.

3. In areas to be excavated a minimum of 18 inches (450 mm) below the lower elevation of the embankment, structure or excavation.

4. In all other areas a minimum of 12 inches (300 mm) below natural ground.

Holes remaining after removal of all obstructions, objectionable material, trees, stumps, etc. shall be backfilled with select embankment material and compacted by approved methods. All cleared and grubbed material shall be disposed of in a manner satisfactory to the Engineer or designated representative. Unless otherwise provided, all materials as described above shall become the property of the Contractor and removed from the site and disposed of at a permitted disposal site.
Burning materials at the site shall conform to Standard Contract Document Section 01550, "Public Safety and Convenience".

102S.4 - Measurement

"Clearing and Grubbing", when included in the contract as a pay item, will be measured by the acre (hectare: 1 hectare is equal to 2.471 acres), 100 foot (100 feet is equal to 30.5 meters) stations or lump sum, regardless of the width of the right of way.

102S.5 - Payment

The work and materials presented herein will not be paid for directly, but shall be included in the unit price bid for the item of construction in which this item is used, unless specified as a separate pay item in the contract bid form. When included for payment, it shall be paid for at the unit bid price for "Clearing and Grubbing". This price shall include full compensation for all work herein specified, including the furnishing of all materials, equipment, tools, labor and incidentals necessary to complete the Work.

Payment, when included as a contract pay items, will be made under one of the following:

<table>
<thead>
<tr>
<th>Pay Item No. 102S-A:</th>
<th>Clearing and Grubbing</th>
<th>Per Acre.</th>
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</thead>
<tbody>
<tr>
<td>Pay Item No. 102S-B:</td>
<td>Clearing and Grubbing</td>
<td>Per 100 foot Station.</td>
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<tr>
<td>Pay Item No. 102S-C:</td>
<td>Clearing and Grubbing</td>
<td>Lump Sum.</td>
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End

SPECIFIC CROSS REFERENCE MATERIALS

Specification Item 102S, "CLEARING AND GRUBBING"

City of Austin Standard Contract Documents

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
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<tbody>
<tr>
<td>00700</td>
<td>General Conditions</td>
</tr>
<tr>
<td>01550</td>
<td>Public Safety and Convenience</td>
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### City of Austin Utilities Criteria Manual

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Section 5.2.0</td>
<td>Permit for Excavation in the Public Right-of-Way</td>
</tr>
</tbody>
</table>

### City of Austin Standard Specifications

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
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<tbody>
<tr>
<td>Item No. 110S</td>
<td>Street Excavation</td>
</tr>
<tr>
<td>Item No. 111S</td>
<td>Excavation</td>
</tr>
<tr>
<td>Item No. 610S</td>
<td>Preservation of Trees and Other Vegetation</td>
</tr>
</tbody>
</table>

### RELATED CROSS REFERENCE MATERIALS

- Specification 102S, "CLEARING AND GRUBBING"

### The Code of the City of Austin, Code of Ordinances, Volume 1

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<td>Tex-115-E</td>
<td>Field Method for Determination of In-Place Density of Soils and Base Materials</td>
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</table>
ITEM NO. 120S - CHANNEL EXCAVATION 9-26-12

120S.1 - Description

This item shall govern (1) excavation of channels within the limits indicated, regardless of the type of material encountered, (2) removal and proper utilization or otherwise satisfactory disposal of all excavated materials and (3) construction, shaping and finishing of all earthwork involved in conformity with the required line, grades and cross sections indicated.

When not otherwise indicated, this item shall include the work described in Specification Item Nos. 101S, "Preparing Right of Way", No. 102S, "Clearing and Grubbing", No. 104S, "Removing Portland Cement Concrete" No. 132S, "Embankment" and No. 236S, "Proof Rolling".

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text inch-pound units are given preference followed by SI units shown within parentheses.

120S.2 - Submittals

The submittal requirements of this specification item may include:

A. A plan for removal and deposition of all 'Waste' materials, and
B. A Blasting Permit if blasting is required and allowed on the project.

120S.3 - Classification

All channel excavation will be unclassified and shall include all materials encountered regardless of their nature or the manner in which they are removed.

120S.4 - Construction Methods

Prior to commencing this work, all required erosion control and tree protection measures shall be in place and all existing utilities located and protected as specified in the Standard Contract Document Section 00700, "General Conditions" and/or indicated on the Drawings. Construction equipment shall not be operated within the drip line of trees, unless otherwise indicated. Construction materials shall not be placed under the canopies of trees. Excavation or embankment materials shall not be placed within the drip line of trees until tree wells are constructed that conform to Specification Item No. 610S, "Preservation of Trees and Other Vegetation".

All channel excavation shall be performed as specified herein and shall conform to the established alignment, grades and cross sections. When fill sections are required, Specification Item No. 132S, "Embankments" shall govern the construction method. Suitable excavated materials shall be utilized, insofar as practicable, in constructing the required embankments. Precautions will be maintained at all times to protect all trees in the area of construction. Where removal of trees is necessary, they shall be marked as directed by the Engineer or designated representative.

Unsuitable excavated materials or excavation in excess of that needed for construction shall be known as "Waste" and shall become the property of the Contractor. It shall become the Contractor's sole responsibility to dispose of this material off the limits of the right of way in an environmentally sound manner at a permitted disposal site.

All blasting shall conform to the Standard Contract Document Section 01550, "Public Safety and Convenience". In all cases, a Blasting Permit must be obtained in advance from the City of Austin Public Works Department.

120S.5 - Measurement
Accepted channel excavation will be measured by either Method A or B as follows:

A. Method A

Measurement of the volume of excavation in cubic yard (cubic meters: 1 cubic meter is equal to 1.308 cubic yards) by the average end areas. Cross-sectional areas shall be computed from the existing ground surface to the established final section indicated.

B. Method B

Measurement of the volume of excavation in cubic yards (cubic meters: 1 cubic meter is equal to 1.308 cubic yards), based upon average end areas taken from preconstruction cross sections and planned grades. The plan quantities for channel excavation will be used as the measurement for payment for this item.

120S.6 - Payment

This item will be paid for at the contract unit bid price for "Channel Excavation", as provided under measurement Method A, or B and included in the bid. The bid price shall include full compensation for furnishing all materials, equipment, tools, labor and incidentals necessary to complete the work.

Payment will be made under one of the following:

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<td>Pay Item No. 120S-B:</td>
<td>Channel Excavation, Plan Quantity</td>
<td>Per Cubic Yard.</td>
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SPECIFIC CROSS REFERENCE MATERIALS

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**Specification 120S, "CHANNEL EXCAVATION"**

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ITEM NO. 132S - EMBANKMENT 8-20-07

132S.1 - Description

This item shall govern the placement and compaction of suitable materials obtained from approved sources for utilization in the construction of street or channel embankments, berms, levees, dikes and structures. When not otherwise included in the Contract Documents or indicated on the Drawings, this item shall include the work described in Specification Item Nos. 101S, “Preparing Right of Way”, 102S, “Clearing and Grubbing”, 104S, “Removing Portland Cement Concrete”, 201S, “Subgrade Preparation” and No. 236S, “Proof Rolling.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text inch-pound units are given preference followed by SI units shown within parentheses.

132S.2 - Submittals

The submittal requirements of this specification item may include:

A. A plan identifying source, material type, classification and characteristics (P.I., optimum moisture-density, etc.) of the proposed embankment material,

B. Type and size of equipment proposed to produce the required compaction, and

C. Compaction (Density-moisture, etc) test results for in-place embankment layers.

132S.3 - Construction Methods

A. General

Prior to the placement of any embankment, all tree protection and tree wells and erosion control devices shall be in place and all operations involving Standard Specification Item No. 101S, "Preparing Right of Way" and/or Standard Specification Item No. 102S, "Clearing and Grubbing" shall have been completed for the areas over which the embankment is to be placed. Stump holes or other small excavations encountered within the limits of the embankments shall be backfilled with suitable material and thoroughly tamped by approved methods before commencement of the embankment construction.

The area of embankment placement shall be proof rolled (Specification Item No. 236S, “Proof Rolling”) and any unstable or spongy areas shall be undercut and backfilled with suitable material or otherwise mechanically manipulated and compacted by approved methods. Where shown on the Drawings or required by the Engineer or designated representative, the ground surface thus prepared shall be compacted by sprinkling and rolling. The surface of the ground, including those plowed and loosened or roughened by small washes, shall be restored to approximately its original slope and the ground surface thus prepared shall be compacted by sprinkling and rolling.

Construction equipment shall not be operated within the drip line of trees, unless otherwise indicated. Construction materials shall not be stockpiled under the canopies of trees. Excavation or embankment materials shall not be placed within the drip line of trees until tree wells are constructed in accordance with Item No. 610S, "Preservation of Trees and Other Vegetation”.

Unless otherwise indicated on the Drawings and with the exception of rock, the surface of the ground of all unpaved areas, which are to receive embankment, shall be loosened by scarifying or plowing to a depth of not less than 4 inches (100 mm). The loosened material shall be re-compacted with the new embankment as hereinafter specified.

The surface of hillsides, which are to receive embankment, shall be loosened, by scarifying or plowing, to a depth of not less than 4 inches (100 mm) and benches constructed before the
embankment materials are placed. The embankment shall then be placed in layers, as hereinafter specified, beginning at the low side with partial width layers and increasing the widths of the layers as the embankment is raised. The material, which has been loosened during preparation of the original ground surface, shall be re-compacted simultaneously with the embankment material placed at the same elevation.

Where embankments are to be placed adjacent to or over existing roadbeds, the roadbed slopes shall be plowed or scarified to a depth of not less than 6 inches (150 mm) and the embankment along the roadbed slopes shall be built up in successive layers, as hereinafter specified, to the elevation of the old roadbed. Then, if specified, the top surface of the old roadbed shall be scarified to a minimum depth of 6 inches (150 mm) and re-compacted along with the next layer of the new embankment. The total depth of the scarified and added material shall not exceed the permissible layer depth, specified hereinafter.

Trees, stumps, roots, vegetation or other unsuitable materials shall not be placed in embankment.

All embankment shall be constructed in layers approximately parallel to the finished grade and unless otherwise indicated, each layer shall be so constructed as to provide a uniform slope of 1/4 inch per foot (20 mm per meter) from the centerline of the roadbed to the outside. In the case of superelevated curves, each layer shall be constructed to conform to the specified superelevation or cross slope.

The embankment shall be continuously maintained at its finished section and grade until that portion of the work is accepted. After completion of the embankment to the finished section and grade, the Contractor shall proof roll the subgrade or finished grade in accordance with Specification Item No. 236S, "Proof Rolling". Any unstable or spongy areas shall be undercut and backfilled with suitable material or otherwise mechanically manipulated and compacted by approved methods. After acceptance of the embankment, re-vegetation activities shall commence immediately to minimize the soil loss and air pollution.

B. Earth Embankments

Earth embankments shall be defined as embankments composed of soil material other than rock and shall be constructed of acceptable material from approved sources.

Unless directed otherwise, earth embankments shall be constructed in successive layers, with a thickness of 8 inches (200 mm) or less in loose measure, for the full width of the individual cross section and in a length that is best suited to the sprinkling and compaction methods utilized.

Minor quantities of rocks with a maximum dimension of 4 inches (100 mm) may be incorporated in the earth embankment layers, provided that the rock is not placed immediately adjacent to structures.

Each layer of embankment shall be uniform as to material type and classification, density and moisture content before beginning compaction. Where layers of unlike materials abut each other, each layer shall be feathered on a slope of 1:20 or the materials shall be so mixed as to prevent abrupt changes in the soil. Any material placed in the embankment by dumping in a pile or windrows shall not be incorporated in a layer in that position. All such piles or windrows shall be incorporated in an embankment layer by blading and mixing or by similar methods. Clods or lumps of material shall be broken down into smaller sizes and the embankment material in a layer shall be mixed by blading, harrowing, discing or similar methods to insure that a uniform material of uniform density is secured in each layer.

The water required in sprinkling the layers, to obtain the moisture content necessary for optimum compaction, shall be evenly applied. It shall be the responsibility of the Contractor to secure uniform moisture content throughout the layer by such methods as may be necessary.
All earth cuts, whether full width or partial width side hill cuts and which are not required to be excavated below the subgrade elevation, shall be scarified to a uniform depth of at least 6 inches (150 mm) below grade. The material shall be mixed and reshaped by blading, sprinkled and rolled in accordance with the requirements outlined above for earth embankments to the same density required for the adjacent embankment.

Compaction of embankments shall conform to Item No. 201S, "Subgrade Preparation". Each layer shall be compacted to the required density by any method, and/or type and size of equipment, which will produce the required compaction. Prior to and in conjunction with the rolling operation, each layer shall be brought to the moisture content necessary to obtain the required density and shall be kept leveled with suitable equipment to insure uniform compaction over the entire layer.

It is the intent of this specification to provide the required density and moisture control for each layer of earth embankment and select material based on the plasticity characteristics of the embankment soil. Each layer shall be sprinkled as required and compacted to the extent necessary to provide the density specified below, unless otherwise indicated.

<table>
<thead>
<tr>
<th>Description</th>
<th>Density, Percent</th>
<th>Moisture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-swelling Soils (PI less than 20)</td>
<td>Not less than 95</td>
<td></td>
</tr>
<tr>
<td>Swelling Soils (PI between 20 and 35)</td>
<td>Not less than 95 nor more than 102</td>
<td>Not less than optimum</td>
</tr>
<tr>
<td>Swelling Soils (P.I. greater than 35)</td>
<td>Not less than 95 nor more than 100</td>
<td>Not less than optimum</td>
</tr>
</tbody>
</table>

The Plasticity Index (PI) will be established in accordance with TxDOT Test Methods Tex-104-E, Tex-105-E and Tex-106-E and the density determination will be made in accordance with TxDOT Test Method Tex-114-E, "Laboratory Compaction Characteristics and Moisture-Density Relationship of Subgrade and Embankment Soil". Field density measurements will be made in accordance with TxDOT Test Method Tex-115-E, "Field Method for Determination of In-Place Density of Soils and Base Materials".

After each layer of earth embankment or select material is complete, tests, as necessary, will be conducted as directed by the Engineer or designated representative. If the material fails to meet the density specified, the course shall be reworked as necessary to obtain the specified compaction.

C. Rock Embankments

Rock embankments shall be defined as those composed principally of rock and shall be constructed of accepted material from approved sources. Rock embankments shall not be placed immediately adjacent to structures.

 Except as otherwise indicated on the Drawings, rock embankments shall be constructed in successive layers of 18 inches (450 mm) or less in thickness for the full width of the cross section. When, in the opinion of the Engineer or designated representative, the rock sizes necessitate a greater thickness of layer than specified, the layer thickness may be increased as necessary, but in no case shall the thickness of layer exceed 2½ feet (750 mm). Each layer shall be constructed by starting at one end and dumping the rock on top of the layer being constructed then pushing the material ahead with a bulldozer in such a manner that the larger rock will be placed on either the ground or the preceding embankment layer. Each layer shall be constructed in such a manner that
the interstices between the larger stones are filled with small stones and spalls which have been created by this operation and from the placement of succeeding layers of material.

The maximum dimension of any rock used in embankment shall be less than the thickness of the embankment layer and in no case shall any rock over 2 feet (600 mm) in its greatest dimension be placed in the embankment, unless otherwise approved by the Engineer or designated representative. All oversized rocks, which are otherwise suitable for construction, shall be broken to the required dimension and utilized in embankment construction where indicated. When preferred by the Contractor and acceptable to the Engineer or designated representative, oversized rocks may be placed at other locations where the embankment layer is of greater depth, thus requiring less breakage.

Each layer shall be compacted to the required density as outlined for "Earth Embankments", above, except in those layers where rock will make density testing difficult, the Engineer or designated representative may accept the layer by visual inspection or proof rolling conforming to Specification Item No. 236S, "Proof Rolling".

Unless otherwise indicated, the upper 3 feet (1 meter) of the embankment shall not contain stones larger than 4 inches (100 mm) in their greatest dimension and shall be composed of material so graded that the density and uniformity of the surface layer may be secured in accordance with TxDOT Test Method Tex-114E.

Exposed oversize material shall be broken up or removed.

D. At Culverts and Bridges

Embankment materials, which are to be placed adjacent to culverts and bridges and cannot be compacted by the blading and rolling equipment that was used in compacting the adjoining sections of embankment, shall be compacted in the manner prescribed under Item No. 401, "Structural Excavation and Backfill".

Embankment constructed around 'spill through' type abutments shall be constructed in 6 inch (150 mm) loose layers of a uniform suitable material and shall be placed so as to maintain approximately the same elevation on each side of the abutment. All materials shall be mixed, wetted and compacted as specified above. Embankment material placed adjacent to any portion of a structure or above the top of any culvert or similar structure shall be free of any appreciable amount of gravel or stone particles and shall be thoroughly compacted by mechanical compaction equipment.

132S.4 - Measurement

All accepted embankment, when included in the contract as a separate pay item, will be measured in place and the volume computed in cubic yards (cubic meters: 1 cubic meter is equal to 1.196 cubic yards) by the method of average end areas. No allowance shall be made for shrinkage.

132S.5 - Payment

The work and materials presented herein will generally not be paid for directly, but shall be included in the unit price bid for the item of construction in which this item is used. However, when specified in the contract bid form as a separate pay item, it shall be paid for at the contract unit bid price for "Embankment". The bid price shall include full compensation for all work herein specified, including the furnishing of all materials, (except "Borrow" when paid as a separate bid item) compaction, equipment, tools, labor, water for sprinkling, proof rolling and incidentals necessary to complete the work.

Payment, when included in the contract as a separate pay item, will be made under:
Pay Item No. 132S-A: Embankment Per Cubic Yard.

End

**SPECIFIC CROSS REFERENCE MATERIALS**

*Specification 132S, "EMBANKMENT"*

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### Item No. 6105

**Preservation of Trees and Other Vegetation**

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**RELATED CROSS REFERENCE MATERIALS**

**Specification 132S, "EMBANKMENT**

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<td>Tree Protection Fence, Type B Chainlink</td>
</tr>
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<td>No. 610S-3</td>
<td>Tree Protection Fence, Type B Wood</td>
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<td>No. 610S-4</td>
<td>Tree Protection Fence, Modified Type A</td>
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<td>No. 610S-5</td>
<td>Tree Protection Fence, Modified Type B</td>
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<td>No. 621S-1</td>
<td>Diversion</td>
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<td>No. 624S-1</td>
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</tr>
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</tr>
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</tr>
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</tr>
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<td>Pipe Slope Drain (Flexible)</td>
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<td>637S-2</td>
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<td>638S-1</td>
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Texas Department of Transportation: *Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges*

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<td>Rolling (Tamping)</td>
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<tbody>
<tr>
<td>Tex-103-E</td>
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</tr>
<tr>
<td>Tex-107-E</td>
<td>Determination of Bar Linear Shrinkage of Soils</td>
</tr>
</tbody>
</table>
594S.1 - Description

The work to be performed under this specification shall include furnishing, assembling, filling, and tying rock-filled wire mesh compartmented gabions and revet mattresses in accordance with the lines, grades, and dimensions shown on the Drawings or otherwise established in the field by the Engineer or designated representative. The type of construction (i.e. twisted woven mesh, welded mesh or both) and wire sizes [i.e. 13.5 gage (2.2 mm), 12 gage (2.7 mm) or 10 gage (3.4 mm)] shall be as defined in the Drawings or otherwise established by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text and accompanying tables, the inch-pound units are given preference followed by SI units shown within parentheses.

594S.2 - Materials

Gabions and revet mattresses shall be constructed of galvanized steel wire with polyvinylchloride (PVC) flexible coating. The gabions and revet mattresses shall be of the construction and sizes specified in the Drawings and shall meet the specifications presented herein. Unless otherwise specified in the Drawings or approved by the Engineer or designated representative, the gabions and revet mattresses may be constructed of either double twist woven mesh or welded wire mesh.

Gabions shall be furnished in the specified dimensions within a tolerance of ± 5 percent. Revet mattresses shall be furnished in the specified dimensions within a tolerance of ( 5 percent for the length and width and ( 10 percent for the height. For each individual gabion or revet mattress, the same mesh style shall be used for the base, front, ends, back, diaphragms and lid panels. Each gabion or revet mattress shall be manufactured and divided into cells of equal length, no greater than 3 feet (0.9 meter), by diaphragm panels.

1) Gabion and Revet Mattress Wire

Gabion wire shall be galvanized steel, Class 3 or A coating, soft temper conforming to ASTM A 641, and shall specifically meet the requirements given below for gabions (12 gage wire) and/or revet mattresses (13.5 wire gage) as called for in the Drawings. PVC coating of the wire may be fusionbonded or extruded onto the wire. Galvanization of welded wire shall be performed either before or after welding.

Table 1: Requirements - Mesh Wire for Gabions and Revet Mattress Units

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Gabions</th>
<th>Revet Mattresses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire Gage</td>
<td>12 gage</td>
<td>13.5 gage</td>
</tr>
<tr>
<td>Maximum Tensile Strength (ASTM 641)</td>
<td>70,000 psi (483 mPa)</td>
<td>75,000 psi (517 mPa)</td>
</tr>
<tr>
<td>Nominal Wire Diameter (ASTM A 641)</td>
<td>0.106 inch (2.7 mm)</td>
<td>0.0866 inch (2.2 mm)</td>
</tr>
<tr>
<td>Minimum Diameter (ASTM)</td>
<td>0.102 inch (2.6 mm)</td>
<td>0.0826 inch (2.9 mm)</td>
</tr>
<tr>
<td>A 641, Table 3)</td>
<td>mm</td>
<td>mm</td>
</tr>
<tr>
<td>----------------</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Galvanizing, Zinc (ASTM A 641, Table 1)</td>
<td>0.80 oz/ft² (245 gr/m²)</td>
<td>0.70 oz/ft² (215 gr/m²)</td>
</tr>
</tbody>
</table>

(2) Gabion Mesh

(A) Woven Mesh

Woven mesh shall be of a uniform nonraveling, double twist hexagonal pattern nominally of dimensions 3.25 inches by 4.5 inches (83 mm by 114 mm). Selvedge wire shall be 10 gage (nominal diameter of 3.4 mm).

(B) Welded Mesh

Mesh opening shall be nominally 3 inches by 3 inches (75 mm by 75 mm). Strength of welds shall meet the following requirements when tested in accordance with section 13.4 of ASTM A-974:

Table 2: Minimum Weld Strength Requirements

<table>
<thead>
<tr>
<th>Type of Structure</th>
<th>Wire Size (Diameter)</th>
<th>Minimum Average Weld Shear Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gage (mm)</td>
<td>English Units (SI Units)</td>
</tr>
<tr>
<td>Gabions</td>
<td>12 (2.7)</td>
<td>472 lbf (2.10 kN)</td>
</tr>
<tr>
<td>Revet Mattress</td>
<td>13.5 (2.2)</td>
<td>292 lbf (1.30 kN)</td>
</tr>
</tbody>
</table>

(3) Revet Mattresses

(A) Woven Mesh

Woven mesh shall be of a uniform nonraveling, double twist hexagonal pattern, nominally of dimensions 2.5inch × 3.25inch (64 mm by 83 mm). Selvedge wire shall be 12 gage (nominal diameter of 2.7 mm).

(B) Welded Mesh

Mesh opening shall be nominally 1.5inch × 3.0inch (38 mm by 76 mm). Strength of welds shall meet the requirements listed in Table 2 for 13.5 gage (2.2 mm) wire, when tested in accordance with section 13.4 of ASTM A-974:
(C) Manufacturing

Twisted wire mesh revet mattresses shall be manufactured in conformance with ASTM A-975, while welded wire mesh revet mattresses shall be manufactured in conformance with ASTM A-974.

(4) PVC Coating

All wire used in fabrication of the gabions, revet mattresses and wiring operations during construction shall, after zinc coating, have a fusebonded or extruded coating of PVC. The coating shall be gray in color. The thickness shall be nominally 0.020 inch (0.5 mm), and shall not be less than 0.015 inch (0.38 mm) in thickness. It shall be capable of resisting deleterious effects of natural weather exposure, and immersion in salt water.

For PVC-coated welded wire fabric panel, cutting of the panels shall not be allowed closer than ¼ inch (1/8 inch (6 mm (3.18 mm) after fabrication in order to prevent exposure near the welds.

(A) Initial Properties:

1) Woven Mesh:

The initial properties of the PVC coating material shall have a demonstrated ability to conform to the following requirements specified in ASTM A-975:

a) Specific Gravity:
The specific gravity as determined in accordance with ASTM D-792 shall be between 1.3 to 1.35.

b) Durometer Hardness:
The hardness as determined in accordance with ASTM D-2240 shall be between 50 to 60, Shore D.

c) Tensile Strength:
The tensile strength when tested in accordance with ASTM D-412 shall not be less than 2985 psi (20.6 mPa).

d) Modulus of Elasticity at 100% Elongation:
The Modulus of Elasticity when determined in accordance with ASTM D-412 shall not be less than 2700 psi (18.6 mPa).

e) Resistance to Abrasion:
The percentage loss in weight (mass) during abrasion testing in accordance with ASTM D-1242 shall be less than 12%.

f) Brittleness Temperature:
The brittleness temperature shall not be higher than 150F (-9.00C) or a lower temperature specified by the Engineer, when tested in accordance with ASTM D-746. The maximum brittleness temperature should be at least 150F (80C) below the minimum temperature at which the gabion will be handled or filled.

2) Welded Mesh:

The initial properties of the PVC coating material shall have a demonstrated ability to conform to the following requirements specified in ASTM A-974:

a) Specific Gravity:
The specific gravity as determined in accordance with ASTM D-792 shall be between 1.20 and 1.40.

b) Durometer Hardness:
The hardness as determined in accordance with ASTM D-2240 shall not be less than 75, Shore A.

c) Tensile Strength:
The tensile strength when tested in accordance with ASTM D-638 shall not be less than 2275 psi (15.7 mPa).

d) Modulus of Elasticity:
The Modulus of Elasticity when determined in accordance with ASTM D-638 shall not be less than 1980 psi (13.7 mPa).

e) Resistance to Abrasion:
The percentage loss in weight (mass) shall be less than 12 % during abrasion testing in accordance with ASTM D-1242, Method B, at 200 cycles, CSI-A abrader tape, 80 grit.

f) Brittleness Temperature:
The brittleness temperature shall not be higher than 150°F (-9.00°C) or a lower temperature specified by the Engineer, when tested in accordance with ASTM D-746. The maximum brittleness temperature should be at least 150°F (80°C) below the minimum temperature at which the gabion will be handled or filled.

g) Adhesion:
The PVC coating on the wire shall adhere to the wire such that the coating breaks rather than separates from the wire, when tested in accordance with the PVC Adhesion Test described in Section 13.3 of ASTM A-974.

h) Mandrel Bend:
The PVC-coated wire, when subjected to a single 3600 bend at 0°F (-180°C) around a mandrel ten times the diameter of the wire, shall not exhibit breaks or cracks in the PVC coating.

(B) Performance Tests:
The PVC coating shall have the demonstrated ability to withstand the specified exposure testing.

1) Exposure to Salt Spray: The PVC shall show no effect after 3000 hours of salt spray exposure in accordance with ASTM Test Method B-117.

2) Exposure to Ultraviolet Rays:
The PVC shall show no effect of exposure to ultraviolet light with test exposure of 3000 hours, using apparatus Type E and 145°F (63°C), when tested in accordance with ASTM Practice D-1499 and G-23.

(C) Properties After Exposure Tests:
After conclusion of the salt spray and exposure to ultraviolet light tests, the PVC shall not show cracks, blisters or splits, nor any noticeable change in color. In addition the PVC coating shall
not show cracks or breaks after the wires are twisted in the fabrication of the mesh, nor shall there be any moisture intrusion under the PVC coating as a result of the test.

After completion of the exposure tests the following criteria shall also be met:

1) Woven Mesh:
   a) The Specific Gravity shall not change more than 6% of its initial value.
   b) The Durometer Hardness shall not change more than 10% of its initial value.
   c) The Tensile Strength shall not change more than 25% of its initial value.
   d) The Resistance to Abrasion shall not change more than 10% of its initial value.

2) Welded Mesh:
   a) The Specific Gravity shall not change more than 6% of its initial value.
   b) The Modulus of Elasticity shall not change more than 25% of its initial value.
   c) The Tensile Strength shall not change more than 25% of its initial value.
   d) The Resistance to Abrasion shall not change more than 10% of its initial value.

(D) Salt Spray Resistance for Fastener:

The fasteners for twisted mesh wire gabions and revet mattresses shall be subjected to Salt Spray Test of Test Method B-117 for a period of not less than 48 ±1 hour cycle length. After testing the fasteners, the selvedge, or mesh wire confined by the fasteners shall show no rusty spots on any part of the surface excluding the cut ends.

(5) Stone

(A) Gabion Basket Stones

Stone fill shall be durable and of suitable quality to ensure permanence in the structure. The stone used to fill the gabion baskets shall be a clean, sound, and durable rock meeting the following requirements. It shall have a wearing loss less than 35 percent when the stone is tested with the Los Angeles Abrasion Machine in accordance with ASTM Test Method C535 (TxDOT Test Method Tex-410A). The loss of material experienced during five cycles of magnesium sulfate exposure conducted in accordance with TxDOT Test Method Tex411A for Rock RipRap shall not exceed 18 percent. The stone shall be well graded to produce a dense fill, angular in texture, while meeting the following gradation requirements:

Table 3: Gabion Stone Gradation Requirements

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent by Weight (Mass) % Passing Each Individual Sieve</th>
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</thead>
<tbody>
<tr>
<td>US</td>
<td>(SI)</td>
</tr>
<tr>
<td>8 Inch</td>
<td>(200 mm)</td>
</tr>
<tr>
<td>4 Inch</td>
<td>(100 mm)</td>
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<tr>
<td>3 Inch</td>
<td>(75 mm)</td>
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</table>
The minimum unit weight (unit mass) of a rockfilled gabion shall be 120 pcf [1.92 megagrams (mg) per cubic meter]. Verification of unit weight (mass) shall be performed when ordered by the Engineer, by constructing a test gabion with materials supplied for construction with the same effort and method intended for production gabions.

(B) Revet Mattress Stone:

The stone used to fill the revet mattresses shall be as specified for gabions except that it shall have a maximum dimension of 5 inches (125mm) and a minimum dimension of 3 inches (75 mm). The majority of the stone shall be in the 3 to 4 inch (75 to 100 mm) range; cubical or rounded in shape. A tolerance of 5% shall be allowed on the upper and lower dimensions of the rock.

(6) Connections

(A) Wire

Lacing wire and connecting wire shall be 13.5 gage [0.087 inch (2.20 mm)] PVC coated galvanized steel, Class 3, soft temper, conforming to ASTM A-641. During testing, any separation of 2 inches (50 mm) or more between connecting wires shall be considered as a failure.

(B) Spiral Binder for Welded Wire Mesh

Spiral binders shall consist of 0.106 inch (2.7 mm) PVC coated wire for the gabion and 0.087 inch (2.2 mm) PVC coated wire for the revet mattresses. Spiral binders shall have a 3.0 inch (75 mm) maximum separation between continuous successive loops (3 inch or 75mm pitch).

The binder shall be made of galvanized steel, Class 3, soft temper, conforming to ASTM A-641.

(C) Alternate Fasteners for Twisted Woven Mesh

Alternate fasteners, acceptable for use by the intended gabion basket manufacturer, may be submitted to the Engineer for consideration and approval prior to construction. The fasteners may consist of split ring or interlocking fasteners. Alternate fasteners systems shall produce a joint that meets the requirements of ASTM A-975, Section 7, Table 2.

(7) Fastener System

The Contractor shall provide a complete description of the fastener system, including the number of fasteners required for all vertical and horizontal connections for single- and multiple-basket joinings, as well as the number and size wires the fastener is capable of properly joining. The Contractor shall provide a description of a properly installed fastener, including test reports, drawings and/or photographs. Properly formed fasteners shall meet the requirements of ASTM A-974 for welded wire mesh or ASTM A-975 for twisted woven mesh.

(A) Each interlocking fastener shall be locked and closed.

(B) Each overlapping ring fastener shall be closed and the free ends shall overlap an average of 1 inch (25 mm).

(C) Spiral binders shall be screwed into position such that they pass through each mesh opening along the joint. In order to prevent unraveling, both ends of the spiral shall be crimped back around itself.

(D) Wire fasteners shall not be used to join more wires, or larger wires, than tested and approved for the application.

(8) Panel to Panel Joint Strength
The minimum strength of the joined panels shall be as specified in Section 7.3 of ASTM A-974 for Welded wire panels or Section 7.3 of ASTM A-975 for twisted woven mesh.

(9) Miscellaneous

Aggregate bedding, geotextiles or other materials shall conform to the requirements established on the Drawings.

(10) Certificate of Compliance

The Contractor shall submit Certificates of Compliance for all materials proposed for use to the Engineer for review and approval one week prior to construction.

594S.3 - Construction

Twisted wire mesh Gabon's and revet mattresses shall be supplied in the forms allowed in ASTM A-975, while welded wire mesh Gabon's and revet mattresses shall be supplied in a form allowed in ASTM A-974.

The Gabon/revet mattress manufacturer/supplier will be required to have a qualified representative on site at the start of gabion/revet mattress construction. The Contractor shall submit work experience documentation of the representative for review/approval by the Engineer or designated representative. The representative shall be available for consultation as needed throughout the gabion construction.

Gabions and revet mattresses shall be constructed to the lines and grades shown on the Drawings. Individual or groups of gabions or revet mattresses, which deviate from line and grade, shall, at the direction of the Engineer or designated representative, be removed and replaced at no cost to the owner. Gabions or revet mattresses, which are constructed with bulges, and/or underfilled, loosely filled, or otherwise lacking a neat and compact appearance shall, at the direction of the Engineer or designated representative, be repaired/replaced at no cost to the owner. Underfilling of gabion/revet mattress corners to facilitate insertion of spirals shall not be permitted.

(1) Foundation Preparation

The foundation shall be excavated to the extent shown on the Drawings or as directed by the Engineer or designated representative. All loose or otherwise unsuitable materials shall be removed. All depressions shall be carefully backfilled to grade. The depressions shall be backfilled with suitable materials from adjacent required excavation, or other approved source, and compacted to a density at least equal to that of the adjacent foundation. If pervious materials are encountered in the foundation depressions, the areas shall be backfilled with free draining materials.

Any buried debris protruding from the foundation that will impede the proper installation and detrimentally impact the final appearance of the gabion, shall also be removed, and the voids carefully backfilled and compacted as specified above. Immediately prior to gabion or revet mattress placement, the prepared foundation surface shall be inspected and approved by the Engineer and no material shall be placed thereon until that area has been approved.

Placement of filter material and/or filter fabric shall be as shown on the Drawings or directed by the Engineer.

(2) Gabion/Revet Mattress Basket Assembly

No work shall take place using PVC coated materials unless both the ambient air temperature and the temperature of the PVC materials are at least 15°F (8°C) above the brittleness temperature of the PVC materials.

Assembly of gabions and revet mattresses shall consist of shaping and tying each individual basket. Baskets shall be assembled by connecting all untied edges including diaphragms with lacing wire, spirals or approved fasteners. The connections for the completed assemblies shall conform to the
requirements of Section 7 of ASTM specifications A-974 (welded wire) and Section 7.3 and Table 2 of A-975 (double twisted).

Assembly of baskets, connection of baskets together and lid closures shall be accomplished in accordance with one of the following approved procedures:

(A) Lacing Wire:

Using lacing wire of appropriate length, secure one end of the wire onto the basket corner by looping and twisting the lacing wire together. Proceed along the joint by tying with double loops every other mesh opening at intervals not more than 6 inches (150 mm) apart, while pulling the basket elements tightly together. Secure the other end of the lacing wire again by looping and twisting the wire around itself.

(B) Spiral Binders for Welded Wire Mesh:

Spiral binders, meeting the minimum acceptance criteria of article 594S.2(6)(c) shall be screwed into position such that they pass through each mesh opening along the joint. To prevent unraveling, each end of the spiral binder shall be crimped back against itself.

(C) Alternate Fasteners for Twisted Woven Mesh:

Interlocking fasteners meeting the minimum acceptance criteria of article 594S.2(6)(c), shall be installed with, as a minimum, one interlocking fastener in every other opening. 

Ring fasteners meeting the minimum acceptance criteria of 594S.2(6)(c), shall be installed with, as a minimum, one split ring fastener in every opening, having a minimum 1 inch (25 mm) total overlap and securing only the number and diameter of wires for which tested.

Placing of gabions and revet mattresses shall consist of installing baskets to the lines and grades shown on the Drawings. Gabions and revet mattresses shall be securely fastened to each adjoining unit along the vertical and top reinforced edges of all contact surfaces. Overlying rows of baskets shall be staggered appropriately. Empty sections stacked on a filled line of gabions and revet mattresses shall be securely fastened to the bottom unit along the front, back and ends.

Prior to the placement of rock, the baskets used in the front vertical exposed faces of retaining walls shall be aligned. To facilitate alignment, tension may be applied to empty units at the direction of the Engineer or designated representative.

(3) Filling of Gabions and Revet Mattresses

The gabions and revet mattresses may be filled by machine, in maximum lifts of 12 inches (300 mm). The machine work shall be supplemented with handwork to avoid bulges and provide a compact mass with a minimum of voids. Care will be exercised so as not to damage the gabion/revet mattress elements or wire coating by limiting height of drop during filling to 3.0 feet (0.9 meter) for Gabions and 1.5 feet (0.5 meter) for revet mattresses. Undue deformation or bulging of the mesh shall be corrected prior to further stone filling. Where specified on the Drawings, select large stone shall be hand placed on vertical outside faces to achieve a desired neat appearance.

During placement, the depth of stone in any cell shall not exceed the depth in an adjoining cell by more than one foot (300 mm). Stone smaller than the mesh opening found against vertical faces shall be removed.

Two connecting wires in each direction for end units and two parallel connecting wires perpendicular to the exposed face for exposed face units shall be installed at every 12 inch (300 mm) lift. The connecting wires shall loop around two mesh openings, and the ends of wires shall be securely twisted with a minimum of three twists after looping. Prefabricated connecting wire may be used in lieu of connecting wire.
Connecting wires associated with 18inch (450 mm) gabions shall be installed when and as specified on the Drawings or as recommended by the gabion/revet mattress manufacturer.

The gabion or revet mattress unit shall be overfilled by 1½ to 2 inches (37.5 to 50 mm) and the lid shall be bent and stretched until it meets the perimeter edges of the front and end panels. The stretching shall be accomplished using an approved lid closing tool in order to prevent damage to the PVC coating. Crow bars or similar single point leverage devices will not be allowed. The lid shall then be securely tied with lacing wire, spirals or approved fasteners to the fronts, ends and diaphragms. Excessive deformation of the lid panel to facilitate closing of a bulging gabion or revet mattress will not be permitted.

All backfill shall be placed and compacted in sequence with the filling of the baskets; however, care shall be exercised in compacting the fill behind a single row of baskets since excessive compaction effort can displace the gabions/revet mattresses from the desired alignment.

Gabion or revet mattress units may be cut or shaped to fit odd length or odd shaped areas. They shall be cut at least 6\text{in} \times 8\text{in} (150 \text{mm} \times 200 \text{mm}) larger than the opening to allow sufficient material for overlap and lacing. All edges or faces formed in this manner shall be adjusted to present a finished and pleasing appearance.

At all times, care shall be taken to turn all loose and projecting ends of wire into the gabion units to prevent injury.

594S.4 - Quality of Work

Wire of proper grade and quality, when fabricated and installed in the manner herein required, shall result in a strong, serviceable mesh-type product having substantially uniform openings. It shall be fabricated and finished properly, as determined by visual inspection, and shall conform to this specification.

594S.5 - Measurement

Measurement of acceptable “Gabions and Revet Mattresses”, complete in place, will be made on the basis of volume determined by the actual length, width and height.

594S.6 - Payment

The Gabion and revet mattress quantities, measured as described above, will be paid for at the unit bid prices per cubic yard (cubic meter: 1 cubic meter equals 1.308 cubic yards) of the various types indicated. The price shall include full compensation for furnishing, hauling and placing all materials, including filter fabric, wire containers, connectors, reinforcement stones and backfill; for all labor, tools, equipment and incidentals needed to complete the work.

Excavation and all subgrade preparation required for shaping the foundation for the wire containers shall be included in the unit bid price for “Gabions and Revet Mattresses”.

Payment will be made under one of the following:

<table>
<thead>
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<th>Gabions, Twisted Woven Wire</th>
<th>Per Cubic Yard.</th>
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<tr>
<td>Pay Item No. 594S-B:</td>
<td>Gabions, Welded Wire</td>
<td>Per Cubic Yard.</td>
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<tr>
<td>Pay Item No. 594S-C:</td>
<td>Revet Mattresses, Twisted Woven Wire</td>
<td>Per Cubic Yard.</td>
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</table>
### Pay Item No. 594S-D:

| Revet Mattresses, Welded Wire | Per Cubic Yard. |

### SPECIFIC CROSS REFERENCE MATERIALS

**Specification Item 594S, "GABIONS AND REVET MATTRESSES"**

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<td>Permanent Structural Practices-Gabions</td>
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**City of Austin Standard Details**

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<td>Gabion Details</td>
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**American Society for Testing and Materials (ASTM)**

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<td>A-974</td>
<td>Standard Specifications for Welded Wire Fabric Gabions and Gabion Mattresses (Metallic-Coated or Polyvinyl Chloride (PVC) Coated)</td>
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A-975  |  Standard Specifications for Double-Twisted Hexagonal Mesh Gabions and Revet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel with Poly Vinyl Chloride (PVC) Coating)

### RELATED CROSS REFERENCE MATERIALS

**Specification Item 594S, "GABIONS AND REVET MATTRESSES"**

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City of Austin Standard Details

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<td>Silt Fence</td>
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**Texas Department of Transportation: Manual of Testing Procedures**

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**American Society for Testing and Materials (ASTM)**

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<td>A-313</td>
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<td>A-641</td>
<td>Specification for Zinc Coated (Galvanized) Carbon Steel Wire</td>
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<td>Standard Test Method for Resistance of Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine</td>
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<td>D-1203</td>
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<td>Standard Specification for Nonrigid Vinyl Chloride Polymer and Copolymer Molding and Extrusion Compounds</td>
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<td>Practice for Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Non-metallic Materials</td>
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</tbody>
</table>
ITEM NO. 605S - SOIL RETENTION BLANKET 6-21-07

605S.1 - Description

This item shall govern the provision and placement of wood, straw or coconut fibert mat, synthetic mat, paper mat, jute mesh or other material as a soil retention blanket for erosion control on slopes or ditches or short-term or long-term protection of seeded or sodded areas indicated on the Drawings or as specified by the Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, inch-pound units are given preference with SI units shown within parentheses.

605S.2 - Submittals

The submittal requirements for this specification item shall include the soil retention blanket material type and sample, evidence that the material is listed on TxDoT/TTI Approved Products List, one (1) full set of Manufacturer's literature and installation recommendations, and any special details necessary for the proposed application.

605S.3 - Materials

A. Soil Retention Blankets.

All soil retention blankets must be listed on TxDoT Approved Products List or approved by the Engineer or designated representative.

The soil retention blanket shall be one (1) of the following classes and types as shown on the Drawings:

1. Class 1. Slope Protection
   (a) Type A Slopes 3:1 or flatter - Clay soils
   (b) Type B Slopes 3:1 or flatter - Sandy soils
   (c) Type C Slopes steeper than 3:1 - Clay soils
   (d) Type D Slopes steeper than 3:1 - Sandy soils

2. Class 2. Flexible Channel Liner
   (a) Type E Short-term duration (Up to 2 years)
       Shear Stress ($t_w$) < 2.0 pound per square foot [psf]
   (b) Type F Short-term duration (Up to 2 years)
       Shear Stress ($t_w$) ≤ 4.0 psf
   (c) Type G Long-term duration (Longer than 2 years)
       Shear Stress ($t_w$) ≤ 6.0 psf
   (d) Type H Long-term duration (Longer than 2 years)
       Shear Stress ($t_w$) ≤ 8.0 psf

B. Fasteners

The fasteners shall conform to the recommendations of the manufacturer for the selected soil retention blanket.
605S.4 - Construction Methods

A. General.

The soil retention blanket shall conform to the class and type shown on the Drawings. The Contractor has the option of selecting an approved soil retention blanket conforming to the class and type shown on the Drawings which is included on the Approved Products List published by TxDOT/TTI Hydraulics and Erosion Control Laboratory.

B. Site Preparation.

Prior to placement of the soil retention blanket, the seedbed area to be covered shall be relatively free of all clods and rocks over 1 ½ inches (37.5 mm) in maximum dimension and all sticks or other foreign matter that will prevent close contact of the preparation mat with the soil surface. The area shall be smooth and free of ruts and other depressions. If the prepared seedbed becomes crusted or eroded as a result of rain or if any eroded places, ruts or depressions exist for any reason, the Contractor shall be required to rework the soil until it is smooth and to reseed or resod the area at the Contractor's own expense. After the area has been properly prepared, the blanket shall be laid out flat, even and smooth, without stretching or crimping the material.

C. Installation.

The Soil Retention Blanket, whether installed as slope protection or as flexible channel liner in accordance with the TxDOT/TTI Approved Products List, shall be placed within 24 hours after seeding (Standard Specification Item No. 604S), sodding (Standard Specification Item No. 602S) or native grassland seeding and planting (Standard Specification Item No. 609S) erosion control operations have been completed, or as approved by the Engineer or designated representative. The soil retention blanket shall be installed and anchored in accordance with the Manufacturer's recommendations. The Contractor shall contact the Engineer or designated representative three (3) days prior to the installation of the soil retention blanket to allow for inspection of the installation by City of Austin personnel.

605S.5 - Measurement

This work and acceptable material for "Soil Retention Blanket" will be measured by the square yard (square meter: 1 square meter is equal to 1.196 square yards) of surface area covered, complete in place.

605S.6 - Payment

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit bid price for "Soil Retention Blanket" of the class shown on the Drawings or approved by the Engineer or designated representative. The unit price shall include full compensation for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work. Anchors, checks, terminal and wire staples will not be paid for directly, but will be included in the unit price bid for this specification item.

Payment will be made under the following:

| Pay Item No. 605S-A: | Soil Retention Blanket Class ___; Type ___ | Per Square Yard. |
## SPECIFIC CROSS REFERENCE MATERIALS

**Specification 605S**, "Soil Retention Blanket"

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<td>Item No. 604S</td>
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<td>Item No. 609S</td>
<td>Native Grassland Seeding and Planting for Erosion Control</td>
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## RELATED CROSS REFERENCE MATERIALS

**Specification 605S**, "Soil Retention Blanket"

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ITEM NO. 609S - NATIVE SEEDING AND PLANTING FOR RESTORATION 1-4-16

609S.1 - Description

This item shall govern the preparation of a seeding and planting area to the lines and grades indicated on the Drawings. This may include seedbed preparation, sowing of seeds, planting of rooted plants, watering, hydromulch, compost and other management practices, as indicated in the Drawings or as directed by the Landscape Architect, Engineer or designated representative.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, inch-pound units are given preference with SI units shown within parentheses.


609S.2 - Submittals

The following submittal items are required in writing during construction:

A. For seed, provide identification of the species, source, mixture, and pure live seed (PLS) of the seed as listed on each seed bag to be used. Copies of the analysis tags and certification tags from all seed bags shall be submitted.

B. Type of mulch or compost.

C. Watering frequency and amount as shown on an irrigation watering schedule.

D. Type of management practices (e.g., hand-weeding, pesticide application, etc.) proposed, with a proposed schedule for observation and treatment.

E. For hydromulch applications, the proposed application rate of seed, type of mulch and tacking agent, and other relevant information. An example of the required documentation is in Table 1.

F. Type of hydraulic seeding equipment and nozzles proposed for use.

G. If pesticide use is proposed, an IPM plan for pest control including pesticide label, proposed application rate and timing, and MSDS sheets.

H. One gallon sample of proposed mulch or compost.

I. The following submittal items are required before Substantial Completion:
   
   A. For hydromulch applications, submit the complete hydromulch application log, including date, time and quantity of product units placed in the slurry tank. An example of an application log is in Table 2.

   B. Pesticide and fertilizer application tracking log. As of January 1, 2012, documentation of all outdoor pesticide and fertilizer use on city-owned properties is required to demonstrate compliance with the EPA/TCEQ mandated Municipal Stormwater Permit, the TPDES General Pesticide Permit, City Code, and the IPM program.

Table 1: Example of proposed hydromulch application rates

<table>
<thead>
<tr>
<th>Hydro Mix</th>
<th>Sheet No.</th>
<th>Seed Mix</th>
<th>Acres</th>
<th>Hydro Slurry Unit (per acre rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Seed (Bags/ac)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seed (Bags/ac)</th>
<th>Tackifier (Buckets/ac)</th>
<th>Mulch (Bales/ac)</th>
<th>Fertilizer (Bags/ac)</th>
<th>Addl. Amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1: Example of proposed hydromulch application rates
Table 2: Example of hydromulch application log

<table>
<thead>
<tr>
<th>Date</th>
<th>Start Time</th>
<th>Finish Time</th>
<th>ac/Tank</th>
<th>Water (gal)</th>
<th>Seed Mix</th>
<th>Hydro Slurry Unit (per acre rates)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Seed (Bags/ac)</td>
</tr>
<tr>
<td>4/13</td>
<td>10:30</td>
<td>11:15</td>
<td>1.0</td>
<td>3300</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>4/17</td>
<td>2:00</td>
<td>2:30</td>
<td>0.5</td>
<td>3300</td>
<td>A</td>
<td>2</td>
</tr>
<tr>
<td>5/20</td>
<td>8:30</td>
<td>10:00</td>
<td>1.2</td>
<td>3300</td>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>


609S.3. - Materials

A. **Seed.**

All seed must meet the requirements of the Texas Seed Law including the labeling requirements for showing PLS, name and type of seed, and all other required elements of the Analysis and Certification Tags. The seed furnished shall be of the previous season’s crop and the date of analysis shown on each bag shall be within 12 months of the time of delivery to the project. Each variety of seed shall be furnished and delivered in separate bags or containers, unless a specific mix is proposed for use. A sample of each variety of seed shall be furnished for analysis and testing when directed by the Landscape Architect, Engineer or designated representative.
The amount of seed planted per square yard (.84 square meters) or acre (hectare) shall be of the type specified in Section 609S.5.

B. **Water.** Water shall be clean and free of industrial wastes and other substances harmful to the growth of plant materials in the area irrigated.

C. **Topsoil.** Topsoil shall conform to Standard Specification Item No. 601S.3(A).

D. **Pesticide.** A least toxic, integrated pest management (IPM) approach shall be used to control weeds. A written request for approval of weed control product(s) and/or materials shall be submitted to the City of Austin Watershed Protection Department (ERM) IPM program coordinator for approval. Additional information can be found at http://www.austintexas.gov/ipm.

E. **Fertilizer.** If fertilizer used is deemed necessary, the fertilizer shall conform to Standard Specification Item No. 606S, Fertilizer. The type and rate of fertilizer should be based on chemical tests of recent (no older than 6 months before application) representative site soil samples. Fertilizer should be applied only when plants can take them up for growth, during: 1) seed germination and plant establishment and 2) after plant establishment. Fertilizer shall not be applied within 48 hours of a potential rain event.

F. **Tackifier.** The tacking agent shall be a biodegradable material approved by the Landscape Architect, Engineer, or designated representative.

G. **Mulch.** Mulch may be used to help prevent soil erosion until preferred plant establishment, whether the mulch be hydraulically applied or shredded vegetative matter. Hydromulching for temporary and permanent vegetation stabilization shall conform to Environmental Criteria Section 1.4.7.

H. **Hydroseeding Equipment.** Hydroseeding equipment shall be clean and free of all previous seeds, fertilizer, mulch, or any hydroseeding products used on prior jobs.

I. **Rooted Plants.** Where proposed, rooted plants shall conform to the requirements of Standard Specification 608S, Planting.


609S.4 - Construction Methods

A. **General.**

The Contractor shall limit preparation to areas that will be seeded/planted immediately. All weedy species (Table 3) shall be controlled by application of an herbicide and/or by physical removal (by the roots) prior to, during the planting operation, and through establishment. The specified weedy species shall be maintained at ten (10) percent or less of total cover after seeding. Additionally, the Landscape Architect, Engineer, or qualified landscape professional may require removal of any plant species that appears to be out-competing seeded or planted species during construction or the establishment period.

Seeds and fruits of non-native woody invasive species should be separated from the rest of the removed plants before mulching or hauling off the material. It must be bagged and disposed of in a landfill to prevent unintentional reintroduction to the site or elsewhere.

**Table 3: Weed List**

<table>
<thead>
<tr>
<th>Weed Type</th>
<th>Botanical Name</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Annual Herb</td>
<td><em>Ambrosia spp.</em></td>
<td>Ragweed</td>
</tr>
<tr>
<td>Plant Type</td>
<td>Scientific Name</td>
<td>Common Name</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Perennial Grass</td>
<td><em>Bothriochloa ischaemum</em></td>
<td>K.R. Bluestem</td>
</tr>
<tr>
<td>Annual Grass</td>
<td><em>Cenchrus spp.</em></td>
<td>Sandbur</td>
</tr>
<tr>
<td>Herb</td>
<td><em>Cnidoscolus texanus</em></td>
<td>Bull Nettle</td>
</tr>
<tr>
<td>Perennial Grass</td>
<td><em>Sorghum halapense</em></td>
<td>Johnson Grass</td>
</tr>
<tr>
<td>Perennial Grass</td>
<td><em>Arundo donax</em></td>
<td>Giant Cane</td>
</tr>
<tr>
<td>Perennial Grass</td>
<td><em>Phllostachys aurea</em></td>
<td>Golden Bamboo</td>
</tr>
<tr>
<td>Vine</td>
<td><em>Toxicodendron radicans</em></td>
<td>Poison Ivy</td>
</tr>
<tr>
<td>Herb</td>
<td><em>Urtica spp.</em></td>
<td>Stinging Nettle</td>
</tr>
<tr>
<td>Winter Annual Herb</td>
<td><em>Rapistrum rugosum</em></td>
<td>Bastard Cabbage</td>
</tr>
<tr>
<td>Winter Annual Grass</td>
<td><em>Bromus arvensis</em></td>
<td>Japanese Brome</td>
</tr>
<tr>
<td>Winter Annual Grass</td>
<td><em>Lolium multiflorum</em></td>
<td>Annual Ryegrass</td>
</tr>
<tr>
<td>Tree</td>
<td><em>Triadica sebifera</em></td>
<td>Chinese Tallow</td>
</tr>
<tr>
<td>Tree</td>
<td><em>Ligustrum sp.</em></td>
<td>Privet</td>
</tr>
<tr>
<td>Tree</td>
<td><em>Melia azedarach</em></td>
<td>Chinaberry</td>
</tr>
<tr>
<td>Tree</td>
<td><em>Lonicera japonica</em></td>
<td>Japanese Honeysuckle</td>
</tr>
<tr>
<td>Shrub</td>
<td><em>Nandina domestica</em></td>
<td>Heavenly Bamboo</td>
</tr>
<tr>
<td>Shrub</td>
<td><em>Photinia sp.</em></td>
<td>Photinia</td>
</tr>
</tbody>
</table>

**B. Plant Bed Preparation.**

After the designated seeding/planting areas have been rough graded, a suitable planting area shall be prepared. In areas where cut or fill is required, a minimum of 6 inches (150 mm) of topsoil (see Section 609S.3.C) shall be placed or use approved existing soil (that is not infested with invasive or noxious plant rootstock [e.g., *Arundo donax* rhizomes]) stockpiled over the entire planting area.
The topsoil or growing medium must be prepared so that compaction is appropriate for plant growth, and to achieve acceptable bulk density or hydrologic function. Ripper and subsoilers may be used to loosen compacted soil and roughen the surface. Disks, plows and excavator attachments are good for compaction reduction, roughening, and for incorporating amendments. If tracked machinery is used in seedbed preparation, cleat marks should run with the contour to prevent rills.

In areas with no soil disturbance, the weeds shall be eliminated and a minimum of 6 inches (150 mm) of topsoil, if none currently exists, shall be placed. The seedbed shall be prepared with limited irregularities, lumps or soil clods and the surface shall be raked or rolled to facilitate seed to soil contact.

Water shall be gently applied as required to prepare the seedbed before the planting operation either by broadcast seeding or hydraulic planting. Seeding shall be performed in accordance with the requirements hereinafter described.

C. Watering.

All watering shall comply with City Code Chapter 6-4 (Water Conservation). Water the seeded/planted areas immediately after installation to achieve germination and a healthy stand of native plants that can ultimately survive without supplemental water.

Apply the water uniformly to the planted areas without causing displacement or erosion of the materials or soil.

Watering applications shall insure that the plantbed is maintained in a moist condition favorable for the growth of plant materials. Watering shall continue until minimum coverage is achieved and accepted by the Landscape Architect, Engineer or designated representative. Watering may be postponed immediately after a half-inch inch (12.5 mm) or greater rainfall on the site but shall be resumed before the soil dries out.

D. Cool Season Cover Crop.

From September 15 to March 1, non-native and native seeding shall include a cool season cover crop at the rate specified in Tables 4, 5, or 6. Cool season cover crops are not permanent erosion control. If installed separately from the proposed seed mix, the cool season cover crops shall be mowed to a height of less than one (1) inch after March 1, and the area shall be re-seeded at the specified seeding rate for native warm-season species (March 1 to September 15).


609S.5 - Native Seeding and Planting

Seeding and planting shall be performed in accordance with the requirements described below. The optimum depth for seeding shall be 1/4 inch (6 millimeters). Seed shall be applied by a method that achieves consistent distribution across a site and proper seed to soil contact (i.e. hand broadcasting, hydromulch, or drill method).

Rooted plants should be strategically and thoughtfully placed on a site. They need not be installed at a consistent, regular pattern across the plantable area(s) of a site but can be clustered or placed irregularly. The goal is to place the rooted plants where they will have the greatest or best effect or impact, and where there is sufficient space (e.g., root space, space off of utilities) and proper conditions (e.g., soil depth, moisture, light) for their long-term success. Installation of rooted plants shall comply with Standard Specification 608S, but rooted plants must not be spaced closer than three-feet (3’) on center. Mulching around seed and rooted plants is not required, but it is a good technique for protecting plants during germination and establishment. Figure 609S.5-1 is an example of rooted plant layout on a hypothetical site.
Figure 609S.5-1: Example of Rooted Plant Layout and Calculation

Rooted Plants such as trees, ornamentals, and shrubs are prohibited from being installed within fifteen (15) feet of any Austin Water Utility (AWU) infrastructure and/or within any easement dedicated for AWU infrastructure. Rooted plants such as grasses, succulents and/or ground cover are permitted within fifteen (15) of any AWU infrastructure and/or within any easement dedicated for AWU infrastructure.
Species substitution, when necessary due to availability, shall be approved by City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. Only native or adapted species suitable for the designated environmental conditions shall be allowed as substitutes. Shorter growing natives such as Buffalograss should be sodded around manholes or other structures requiring higher visibility for access.

If the plant materials are being installed during the cool season (September 15 to March 1), a cool season cover crop species (as listed below) shall be included in the seed mix or installed separately.

The seed and rooted plant mixtures shall be applied in accordance with appropriate growing environments (Upland Full Sun-Table 4, Upland Shade-Dappled-Table 5 and Facultative Moderate to High Moisture-Table 6). Grasses shall constitute 67 percent of the seed mix, with forbs comprising 33 percent. No species shall constitute more than 20% of a seed mix.

<table>
<thead>
<tr>
<th>Type</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Recommended Application rate lbs/ac (kg/ha)</th>
<th>Rooted Plants Species, Diversity, Quantity &amp; Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass Seed Mix**</td>
<td>Buffalograss</td>
<td>Buchloe dactyloides</td>
<td>24.0 (27.0)</td>
<td>A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with Very Low or Low (VL or L) water needs and Sun or Sun/Part Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document***. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.</td>
</tr>
<tr>
<td></td>
<td>Blue Grama</td>
<td>Bouteloua gracilis</td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Green Sprangletop</td>
<td>Leptochloa dubia</td>
<td>2.0 (2.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sand Dropseed</td>
<td>Sporobolus cryptandrus</td>
<td>1.0 (1.1)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Galleta</td>
<td>Pleuraphis jamesii</td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canada Wild Rye</td>
<td>Elymus canadensis</td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Purple Threeawn</td>
<td>Aristida purpurea</td>
<td>4.0 (4.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sideoats Grama</td>
<td>Bouteloua curtipendula</td>
<td>7.0 (7.8)</td>
<td></td>
</tr>
<tr>
<td>Forb</td>
<td>Bluebonnet</td>
<td>Lupinus</td>
<td>20.0 (22.4)</td>
<td></td>
</tr>
<tr>
<td>Seed Mix**</td>
<td>texensis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------</td>
<td>----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purple Prairie Clover</td>
<td>Dalea purpurea</td>
<td>4.0 (4.5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plains Coreopsis</td>
<td>Coreopsis tinctoria</td>
<td>2.0 (2.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partridge Pea</td>
<td>Chamaecrista fasciculata</td>
<td>20.0 (22.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greenthread</td>
<td>Thelesperma filifolium</td>
<td>6.0 (6.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indian Blanket</td>
<td>Gaillardia pulchella</td>
<td>10.0 (11.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemon Mint</td>
<td>Monarda citriodora</td>
<td>3.0 (3.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexican Hat</td>
<td>Ratibida columnaris</td>
<td>2.0 (2.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pink Evening Primrose</td>
<td>Oenethera speciosa</td>
<td>1.0 (1.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunflower (Common)</td>
<td>Helianthus annuus</td>
<td>5.0 (5.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milkweed (Antelope Horn or Green milkweed)</td>
<td>Asclepias asperula or Asclepias viridis</td>
<td>0.1 (0.04)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Cool Season | Cereal rye grain* | Secale cereale | 34.0 (38.1) | Add at least one of the cool season grasses to the warm-season mix |

Total recommended seed mix application rate is 35 lbs/ac (23.5 lbs/ac grass, 11.5 lbs/ac forbs).
Grasses

<table>
<thead>
<tr>
<th>Cover Grasses</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Recommended Application rate lbs/ac (kg/ha)</th>
<th>between September 15 and March 1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oats*</td>
<td><em>Avena sativa</em></td>
<td>4.0 (4.5)</td>
<td><strong>Western Wheatgrass</strong>*</td>
<td><em>Pascopyrum smithii</em></td>
</tr>
</tbody>
</table>

* Plant only between September 15 to March 1. Non-persistent winter cover crop for erosion control. Only one cool season species is required per installation.

** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix can be calculated based on the desired percentage of each seed in a mix.


**Table 5. Upland Species, Shade-Dappled Light Areas**

<table>
<thead>
<tr>
<th>Type</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Recommended Application rate lbs/ac (kg/ha)</th>
<th>Rooted Plants Species, Diversity, Quantity &amp; Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass Seed Mix***</td>
<td>Inland Seaoats**</td>
<td><em>Chasmanthium latifolium</em></td>
<td>12.0 (13.5)</td>
<td>A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with very low (VL), low (L), or low-medium (L-M) water needs and Sun/Part Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document***. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.</td>
</tr>
<tr>
<td></td>
<td>Canada Wildrye</td>
<td><em>Elymus canadensis</em></td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sideoats Grama</td>
<td><em>Bouteloua curtipendula</em></td>
<td>7.0 (7.8)</td>
<td></td>
</tr>
<tr>
<td>Forb Seed Mix***</td>
<td>Purple Coneflower</td>
<td><em>Echinacea purpurea</em></td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lanceleaf Coreopsis</td>
<td><em>Coreopsis lanceolata</em></td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scarlet Sage</td>
<td><em>Salvia coccinea</em></td>
<td>8.0 (9.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drummond Phlox</td>
<td><em>Phlox drummondii</em></td>
<td>8.0 (9.0)</td>
<td></td>
</tr>
<tr>
<td>Seed Mix</td>
<td>Species Name</td>
<td>Quantity (lbs/ac)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------</td>
<td>------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black-Eyed Susan</td>
<td><em>Rudbeckia hirta</em></td>
<td>2.0 (2.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutleaf Daisy</td>
<td><em>Engelmannia pinnatifida</em></td>
<td>18.0 (20.2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tall Aster</td>
<td><em>Aster praealtus</em></td>
<td>1.0 (1.1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illinois bundleflower</td>
<td><em>Desmanthus illinoensis</em></td>
<td>15.0 (16.8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standing cypress</td>
<td><em>Ipomopsis rubra</em></td>
<td>6.0 (6.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winecup</td>
<td><em>Callirhoe involucrata</em></td>
<td>5 (5.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milkweed (Butterfly Weed or Showy Milkweed)</td>
<td><em>Asclepias tuberosa or Asclepias speciosa</em></td>
<td>0.1 (0.04)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total recommended seed mix application rate is 35 lbs/ac (23.5 lbs/ac grass, 11.5 lbs/ac forbs).</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cool Season Cover Grasses</th>
<th>Species Name</th>
<th>Quantity (lbs/ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal rye grain***</td>
<td><em>Secale cereale</em></td>
<td>34.0 (38.1)</td>
</tr>
<tr>
<td>Oats***</td>
<td><em>Avena sativa</em></td>
<td>4.0 (4.5)</td>
</tr>
<tr>
<td>Western Wheatgrass***</td>
<td><em>Pascopyrum smithii</em></td>
<td>5.6 (6.3)</td>
</tr>
<tr>
<td><strong>Add at least one of the cool season grasses to the warm-season mix between September 15 and March 1.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** If unavailable replace with Prairie Wild Rye.

*** Plant only between September 15 to March 1. Non-persistent winter cover crop for erosion control. Only one cool-season species is required per installation.

**** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix shall be calculated based on the desired percentage of each seed in a mix.
### Table 6. Facultative Species, Moderate - High Moisture Areas

<table>
<thead>
<tr>
<th>Type</th>
<th>Common Name</th>
<th>Botanical Name</th>
<th>Recommended Application rate lbs/ac (kg/ha)</th>
<th>Rooted Plants Species, Diversity, Quantity &amp; Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grass Seed Mix</strong></td>
<td>Big Bluestem</td>
<td><em>Andropogon gerardii</em></td>
<td>8.0 (9.0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Big Muhuly (Lindhiemers)</td>
<td><em>Muhlenbergia lindheimeri</em></td>
<td>6.0 (6.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bushy Bluestem</td>
<td><em>Andropogon glomeratus</em></td>
<td>6.0 (6.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eastern Gamagrass</td>
<td><em>Tripsacum dactyloides</em></td>
<td>12.0 (13.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indiangrass</td>
<td><em>Sorghastrum nutans</em></td>
<td>6.0 (6.7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inland Seaoats</td>
<td><em>Chasmanthium latifolium</em></td>
<td>12.0 (13.5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Canada Wildrye</td>
<td><em>Elymus canadensis</em></td>
<td>10.0 (11.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sand Lovegrass</td>
<td><em>Eragrostis trichodes</em></td>
<td>2.0 (2.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Switchgrass</td>
<td><em>Panicum virgatum</em></td>
<td>4.0 (4.5)</td>
<td></td>
</tr>
<tr>
<td><strong>Forb Seed Mix</strong></td>
<td>Black-Eyed Susan</td>
<td><em>Rudbeckia hirta</em></td>
<td>2.0 (2.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illinois Bundleflower</td>
<td><em>Desmanthus ilinoensis</em></td>
<td>15.0 (16.8)</td>
<td></td>
</tr>
</tbody>
</table>

A minimum of two (2) native species of small or large trees, and two (2) native species of shrubs with low (L), low-medium (L-M), or medium (M) water needs and Sun/Part Shade or Shade light needs as listed in the current Grow Green Native and Adapted Landscape Plants guidance document***. Plants must be a minimum size of 1-gallon (see Table 8, equivalency chart) and minimum of 1 plant per 100 square feet.
<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Scientific Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purple Prairie Clover</td>
<td>Dalea purpurea</td>
<td>4.0 (4.5)</td>
</tr>
<tr>
<td>Clasping Coneflower</td>
<td>Dracopis amplexicaulis</td>
<td>3.0 (3.4)</td>
</tr>
<tr>
<td>Plains Coreopsis</td>
<td>Coreopsis tinctoria</td>
<td>2.0 (2.2)</td>
</tr>
<tr>
<td>Goldenrod</td>
<td>Solidago altissima</td>
<td>1.0 (1.1)</td>
</tr>
<tr>
<td>Lazy Daisy</td>
<td>Aphanostephus sp.</td>
<td>1.0 (1.1)</td>
</tr>
<tr>
<td>Lemon Mint</td>
<td>Monarda citriodora</td>
<td>3.0 (3.4)</td>
</tr>
<tr>
<td>Sunflower (Common)</td>
<td>Helianthus annuus</td>
<td>5.0 (5.6)</td>
</tr>
<tr>
<td>Sunflower (Maximilian)</td>
<td>Helianthus maximiliana</td>
<td>4.0 (4.5)</td>
</tr>
<tr>
<td>Milkweed (common or Butterfly Milkweed)</td>
<td>Asclepias syriaca or Asclepia tuberosa</td>
<td>0.1 (0.04)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>26.0</strong></td>
</tr>
</tbody>
</table>

Total recommended seed mix application rate is 26.0 lbs/ac (17.0 lbs/ac grass, 9.0 lbs/ac forbs).

<table>
<thead>
<tr>
<th>Cool Season Cover Grasses</th>
<th>Scientific Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal rye grain*</td>
<td>Secale cereale</td>
<td>34.0 (38.1)</td>
</tr>
<tr>
<td>Oats*</td>
<td>Avena sativa</td>
<td>4.0 (4.5)</td>
</tr>
<tr>
<td>Western Wheatgrass*</td>
<td>Pascopyrum smithii</td>
<td>5.6 (6.3)</td>
</tr>
</tbody>
</table>

Add at least one of the cool season grasses to the warm-season mix between September 15 and March 1.
* Plant only between September 15 to March 1. Non-persistent winter cover crop for erosion control.

** Any unavailable species can be substituted with the same quantity of another species from this list or another species approved by an authorized City of Austin representative including Environmental Reviewer, Environmental Inspector, or Watershed Protection Department representative. The total pounds/acre (lbs/ac) of the proposed seed mix can be calculated based on the desired percentage of each seed in a mix.


### Table 7. Rooted Plant Size Equivalents

<table>
<thead>
<tr>
<th>Potential Substitute</th>
<th>Equivalent To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>Plant Size</td>
</tr>
<tr>
<td>----------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>1</td>
<td>5-gallon</td>
</tr>
<tr>
<td>1</td>
<td>Two- or Three-gallon</td>
</tr>
<tr>
<td>4</td>
<td>4'' pots or quarts</td>
</tr>
<tr>
<td>8</td>
<td>Plugs, live roots, saplings</td>
</tr>
</tbody>
</table>

### Table 8. Seed Rate Calculation

Multiple species native seed mixes require careful calculations to ensure proper planting rates. The example below is for illustrative purposes only.

<table>
<thead>
<tr>
<th>Species</th>
<th>Seeding Rate (lbs/ac)</th>
<th>Desired proportion of a species in the total mix (%)</th>
<th>Total quantity of seed in mix (lbs/ac)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass 1</td>
<td>7</td>
<td>.20</td>
<td>1.40</td>
</tr>
<tr>
<td>Grass 2</td>
<td>2</td>
<td>.20</td>
<td>0.40</td>
</tr>
<tr>
<td>Grass 3</td>
<td>24</td>
<td>.20</td>
<td>4.80</td>
</tr>
<tr>
<td>Forb 1</td>
<td>10</td>
<td>.20</td>
<td>2.00</td>
</tr>
<tr>
<td>Forb 2</td>
<td>8</td>
<td>.20</td>
<td>1.60</td>
</tr>
</tbody>
</table>
Table 9. Seed Calculation Worksheet

The amount of seed needed to be planted on a project shall be calculated before installation to ensure adequate seed is placed, and provided as a submittal. Table 9 is an example worksheet, followed by an example calculation. Information for calculation can be obtained from seed tags or the supplier.

<table>
<thead>
<tr>
<th>Plant Group</th>
<th>Desired Seeding Rate (lbs/ac)</th>
<th>PLS (pure live seed)</th>
<th>Bulk Rate (lbs/ac)</th>
<th>Seeding Area (ac)</th>
<th>Amt. of Seed to be Installed (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grasses</td>
<td>131.00</td>
<td>0.81</td>
<td>161.73</td>
<td>1.50*</td>
<td>242.60</td>
</tr>
<tr>
<td>Forbs</td>
<td>65.34</td>
<td>0.87</td>
<td>75.10</td>
<td>1.50*</td>
<td>112.70</td>
</tr>
<tr>
<td>TOTAL</td>
<td>196.34</td>
<td>0.84 (ave.)</td>
<td>236.83</td>
<td>1.50</td>
<td>355.30</td>
</tr>
</tbody>
</table>

FORMULAS:

PLS (pure live seed) = (Purity × Germination) × 100. Can also use average PLS from seed tags.

Bulk Rate (lbs/ac) = Desired Seed Rate (lbs/ac) / PLS

Amt. of Seed to be Installed (lbs) = Bulk Rate (lbs/ac) × Seeding Area (ac)

Example:
Management Practices include (1) weed management (pesticide application or mechanical removal) to so
than 90 percent of the revegetation area is free of weeds listed in Table 3, (2) reseeding areas of poor
germination to achieve coverage and height per 609S.8, with no bare areas greater than 10 s.f., and (3)
replacement and replanting of rooted plants per 608S.5(O) [Plant Material Removal and Replacement]
and 608S.7 (Acceptability of Plants).

Weeds, as defined in the Weed List (Table 3), shall be controlled in the most efficient manner possible.
The timing of weed control may occur prior to soil disturbance, just before the installation of seed, and/or
during the period of plant establishment. Weed control shall be introduced at one or all of these times, so
that the greatest control is achieved. The preferred method of control is to remove weeds, either by
physical or mechanical means, when the site is conducive (e.g. when the ground is moist) to this
approach.

The entire root system of perennial weeds shall be removed to prevent re-sprouting. Table 9 provides
management practices for woody invasive vegetation. Weeds may be controlled with an approved
contact, systemic herbicide, provided the product is used with appropriate care and is applied in
accordance with label instructions and the following guidelines:

1. Herbicide shall not be applied when the wind is greater than 8 mph (12.9 kph),
2. Herbicide shall not be applied when rainfall is expected within 24 hours,
3. Herbicide shall not contact surface water, i.e. creeks, rivers, and lakes,
4. Herbicide shall not contact desirable vegetation (a wicking method shall be used, if necessary,
to accurately contact target weed only during application).

Table 10. Management Practices for Woody Invasive Vegetation

<table>
<thead>
<tr>
<th></th>
<th>Before Seeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stems ≤1 inch</td>
<td>Pull with weed wrench</td>
</tr>
<tr>
<td>Stems &gt;1 inch</td>
<td>Cut at base and spray stump with appropriate herbicide within five minutes. Bag and dispose of seeds and fruit in landfill.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>After Seeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seedlings</td>
<td>Hand pull</td>
</tr>
<tr>
<td>Sprouts</td>
<td>Foliar application of appropriate herbicide</td>
</tr>
</tbody>
</table>
The Landscape Architect, Engineer or designated representative shall be consulted to determine appropriate weed control management when weeds are located in an environmentally sensitive location (e.g. near water or adjacent to a critical environmental feature).


609S.7 - Reseeding/Replanting

At locations that fail to show an acceptable stand of planting for any reason during the initial seeding, repair and/or reseed, replant locations as determined by the Landscape Architect, Engineer or designated representative. A successful stand of grasses and forbs should exhibit the following:

- Seedlings with vigorous green foliage;
- Green leaves remaining throughout the summer, at least at the plant bases;
- Uniform density, with grasses and/or forbs well intermixed;
- Minimum of 95% cover; and
- No patches of exposed soil greater than 10 s.f. in aerial extent.

The Owner or designated representative will inspect the seeding/planting during April of the calendar year following the year of initial seeding/planting and determine the necessity and extent of over seeding, reseeding, or replanting required. Contractor shall ideally complete any required reseeding/replanting before May 15 of that year. This date may be extended if, in the opinion of the Owner and qualified landscape professional, the weather conditions before May 15 are not suitable for reseeding work. If the timing is bad, an annual cover crop can be over-seeded in a deficient area to temporarily provide coverage until a suitable time for seeding or planting perennial seed or rooted plants. If vegetation fails to grow and thrive, the soil must be tested to determine whether nutrient imbalances are responsible and, if so, an appropriate course of nutrient remediation (e.g., fertilizers, composts, topsoils, or other organic amendments) as recommended by a landscape professional must be implemented by the Contractor.

The Contractor shall meet the requirements for initial seeding and planting, including seeding method, seed mix, application rates, and slope texturing as applicable, unless otherwise agreed to in writing by the Owner and/or City staff. Corrected deficiencies will be re-inspected and approved by the Owner and designated representative, and final acceptance will be granted only upon satisfactory completion.


609S.8 - Measurement

Work and acceptable material for Native Seed and Planting for Restoration will be measured by the square yard (square meter: 1 square meter equals 1.196 square yards) or by the acre (hectare: 1 hectare equals 2.471 acres), complete in place, so that all areas of a site that rely on vegetation for stability must be uniformly vegetated with a minimum of 95 percent total coverage with no bare areas exceeding 10 square feet (1.5 square meters) and a 1½ inch tall (40 millimeters) successful stand of plant materials. Ninety (90) percent of the overall planted area must be free of weeds listed in Table 3. Bare areas shall be re-prepared and reseeded as required by the Landscape Architect, Engineer or designated representative to develop an acceptable stand of vegetation.


609S.9 - Payment
The work performed and materials furnished and measured will be paid for at the unit bid price for Native Seeding and Planting for Restoration of the method specified on the Drawings.

The unit bid price shall include full compensation for furnishing all materials, including all topsoil, water, seed, or fertilizer or mulch and for performing all operations necessary to complete the work.

Payment will be made under one or more of the following pay items:

<table>
<thead>
<tr>
<th>Pay Item No. 609S-A:</th>
<th>Topsoil and Seedbed Preparation</th>
<th>Per Square Yard.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Item No. 609S-B:</td>
<td>Topsoil and Seedbed Preparation</td>
<td>Per Acre.</td>
</tr>
<tr>
<td>Pay Item No. 609S-C:</td>
<td>Native Seeding</td>
<td>Per Square Yard.</td>
</tr>
<tr>
<td>Pay Item No. 609S-D:</td>
<td>Native Seeding</td>
<td>Per Acre.</td>
</tr>
<tr>
<td>Pay Item No. 609S-E:</td>
<td>Rooted Plants</td>
<td>Per each.</td>
</tr>
<tr>
<td>Pay Item No. 609S-F:</td>
<td>Watering</td>
<td>Per 1,000 Gallons (Kgal).</td>
</tr>
</tbody>
</table>

End

**SPECIFIC CROSS REFERENCE MATERIALS**

*Specification Item 609S Native Grassland Seeding and Planting for Erosion Control*

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item No. 130S</td>
<td>Borrow</td>
</tr>
<tr>
<td>Item No. 601S</td>
<td>Salvaging and Placing Topsoil</td>
</tr>
</tbody>
</table>
### City of Austin Land Development Code

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 6-4</td>
<td>Water Conservation</td>
</tr>
</tbody>
</table>

### RELATED CROSS REFERENCE MATERIALS

**Specification Item 609S Native Grassland Seeding and Planting for Erosion Control**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item No. 602S</td>
<td>Sodding for Erosion Control</td>
</tr>
<tr>
<td>Item No. 604S</td>
<td>Seeding for Erosion Control</td>
</tr>
<tr>
<td>Item No. 605S</td>
<td>Soil Retention Blanket</td>
</tr>
<tr>
<td>Item No. 607S</td>
<td>Slope Stabilization</td>
</tr>
<tr>
<td>Item No. 608S</td>
<td>Planting</td>
</tr>
</tbody>
</table>

### City of Austin Standards (Details)

<table>
<thead>
<tr>
<th>Standard No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>627S-1</td>
<td>Grass Lined Swale</td>
</tr>
<tr>
<td>Designation</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td>Item No. 160</td>
<td>Topsoil</td>
</tr>
<tr>
<td>Item No. 162</td>
<td>Sodding for Erosion Control</td>
</tr>
<tr>
<td>Item No. 164</td>
<td>Seeding for Erosion Control</td>
</tr>
<tr>
<td>Item No. 166</td>
<td>Fertilizer</td>
</tr>
<tr>
<td>Item No. 168</td>
<td>Vegetative Watering</td>
</tr>
<tr>
<td>Item No. 169</td>
<td>Soil Retention Blankets</td>
</tr>
<tr>
<td>Item No. 180</td>
<td>Wildflower Seeding</td>
</tr>
<tr>
<td>Item No. 192</td>
<td>Landscape Planting</td>
</tr>
</tbody>
</table>

**Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges**
ITEM NO. 620S - FILTER FABRIC 1-4-16

620S.1 - Description

This item shall govern the furnishing of materials and for placement of filter fabric as indicated on the Drawings or directed by the Engineer or designated representative. Filter Fabric shall have the capability for allowing the passage of ground water or stormwater through it without transporting the soil or medium placed around the filter fabric.

This specification is applicable for projects or work involving either inch-pound or SI units. Within the text, the inch-pound units are given preference followed by SI units shown within parentheses.

620S.2 - Submittals

The submittal requirements of this specification item include:

A. catalog cuts,
B. samples of material selected,
C. testing results,
D. manufacturer's recommended installation procedures, and
E. manufacturer certification of compliance with this specification.

620S.3 - Materials

A. General

The fabric shall be constructed exclusively of synthetic thermoplastic fibers and may be either woven or non-woven to form a mat of uniform quality. Fabric fibers may be either continuous or discontinuous and oriented in either a random or an aligned pattern throughout the fabric. The fabric shall be mildew resistant, rot proof and shall be satisfactory for use in a wet soil and aggregate environment. The fabric shall contain ultraviolet stabilizers and shall have non-raveling edges.

B. Physical Requirements

The fabric shall meet the requirements of Table 1, when sampled and tested in accordance with the methods indicated in the table below.

For applications such as water quality facility underdrain wrappings that require a high flow-through rate, or when specified by the engineer, the fabric shall be woven mono-filament and meet the requirements of Table 2.

All material shall be shipped with suitable wrapping to protect the fabric during shipping and storage at the job site.


620S.4 - Construction Methods

The submittal requirements shall be completed before any materials are ordered.

The "Filter Fabric" shall be installed in accordance with the manufacturer's recommendations, as indicated on the Drawings or as directed by the Engineer or designated representative. When lapping is required, it shall be in accordance with the manufacturer's recommendations. Backfilling around the Filter
Fabric shall be done in such a manner that the Filter Fabric material will not be damaged during the placement.

**TABLE 1: FILTER FABRIC REQUIREMENTS**

<table>
<thead>
<tr>
<th>Original Physical Properties</th>
<th>Test Method</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric weight (mass), on an ambient temperature air-dried tension free sample, expressed in oz/ sq. yd (grams/square meter)</td>
<td>TxDOT Tex-616-J*</td>
<td>Slope Stabilization 4.0 (135) minimum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gabions and Revet Mattresses 6.0 (200) minimum</td>
</tr>
<tr>
<td>Water flow rate by falling head method, 7.9 inches (20 cm) to 3.9 inches (10 cm) on 2 inch (50 mm) ID cylinder with 1 inch (25 mm) diameter orifice, with flow rate expressed in gal/sq.ft/minute (liters/square meter/minute).</td>
<td>TxDOT Tex-616-J*</td>
<td>80 (3,260) minimum</td>
</tr>
<tr>
<td>Breaking load in either machine or cross-machine direction, expressed in pounds (newtons)</td>
<td>ASTM D-1682 grab method G**</td>
<td>100 (445) minimum</td>
</tr>
<tr>
<td>Equivalent opening size for US Standard (SI) sieves.</td>
<td>CW-02215</td>
<td>70 to 100 (212 to 150mm)</td>
</tr>
<tr>
<td>&quot;Apparent elongation&quot; at breaking load in either machine or cross-machine direction, expressed as percent</td>
<td>ASTM D-1682 grab method G**</td>
<td>100 maximum</td>
</tr>
</tbody>
</table>

* TxDOT Tex-616-J, "Testing of Construction Fibers"

** ASTM D 1682 grab method G, "Test Methods for Breaking Load and Elongation of Textile Fabrics"* as modified by TxDOT Test Method Tex-616-J

### TABLE 2: HIGH FLOW FILTER FABRIC REQUIREMENTS

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric Weight</td>
<td>&gt;D 3776</td>
<td>3.0 ounces/square yard minimum</td>
</tr>
<tr>
<td>Ultraviolet (UV) Radiation</td>
<td>D 4355</td>
<td>70% strength retained minimum, After 500 hours in xenon arc device</td>
</tr>
<tr>
<td>Stability</td>
<td>D 3786</td>
<td>120 pound per square inch minimum</td>
</tr>
<tr>
<td>Mullen Burst Strength</td>
<td>D 4491</td>
<td>275 gallons/minute/square feet minimum</td>
</tr>
</tbody>
</table>

Source: [Rule No. R161-15.14, 1-4-2016](#)

620S.5 - Measurement

Work and acceptable material for "Filter Fabric" and "High Flow Filter Fabric" will be measured by the square yard (square meter: 1 square meter equals 1.196 square yards), complete in place.

Source: [Rule No. R161-15.14, 1-4-2016](#)

620S.6 - Payment

The work performed and the materials furnished and measured as provided under "Measurement" will be paid at the unit bid price for "Filter Fabric". The unit bid price, when included in the contract as a pay item, shall include full compensation for all materials, excavation and backfilling and all manipulations, labor, tools, equipment and incidentals necessary to complete the work.

Payment will be made under:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay Item No. 620S-B:</td>
<td>High Flow Filter Fabric</td>
<td>Per Square Yard.</td>
</tr>
</tbody>
</table>

End

**SPECIFIC CROSS REFERENCE MATERIALS**
### American Society for Testing and Materials (ASTM)

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D 1682</td>
<td>Test Methods for Breaking Load and Elongation of Textile Fabrics</td>
</tr>
<tr>
<td>D 3776</td>
<td>Standard Test Method for Mass Per Unit Area (Weight) of Fabric</td>
</tr>
<tr>
<td>D 4355</td>
<td>Test Method for Deterioration of Geotextiles by Exposure to Ultraviolet Light, Moisture, and Heat in a Xenon Arc Type Apparatus</td>
</tr>
<tr>
<td>D 3786</td>
<td>Standard Test Method for Bursting Strength of Textile Fabrics - Diaphragm Bursting Strength Tester Method</td>
</tr>
<tr>
<td>D 4491</td>
<td>Standard Test Method for Water Permeability of Geotextiles by Permittivity</td>
</tr>
</tbody>
</table>

### Texas Department of Transportation Manual of Testing Procedures

<table>
<thead>
<tr>
<th>Designation</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Tex-616-J</td>
<td>Testing of Construction Fabrics</td>
</tr>
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### RELATED CROSS REFERENCE MATERIALS

<table>
<thead>
<tr>
<th>Specification 620S, &quot;Filter Fabric&quot;</th>
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<table>
<thead>
<tr>
<th>City of Austin Environmental Criteria Manual</th>
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<tbody>
<tr>
<td>Section 1.4.2.E</td>
<td>Rock Berm</td>
</tr>
<tr>
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<tr>
<td>Section 1.6.5.A.4</td>
<td>Sand Filtration Bed Details</td>
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<tr>
<td>Section 1.6.7.C</td>
<td>Biofiltration</td>
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**City of Austin Standard Details**

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<tbody>
<tr>
<td>Number 639S-1</td>
<td>Rock Berm</td>
</tr>
<tr>
<td>Number 661-1</td>
<td>Sand Bed Filtration Configurations Using Geomembrane Liner</td>
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<tr>
<td>Number 661-2</td>
<td>Sand Bed Filtration Configurations Using Clay Liner/No Liner Required</td>
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<tr>
<td>Number 661-3</td>
<td>Biofiltration Bed Configurations Using Geomembrane/Clay Liner</td>
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**City of Austin Standard Specifications**

<table>
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<th>Designation</th>
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<tr>
<td>Item No. 101S</td>
<td>Preparing Right of Way</td>
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<tr>
<td>Item No. 102S</td>
<td>Clearing and Grubbing</td>
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<tr>
<td>Item No. 111S</td>
<td>Excavation</td>
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<td>Item No. 120S</td>
<td>Channel Excavation</td>
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<tr>
<td>Item No. 401</td>
<td>Structural Excavation and Backfill</td>
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<tr>
<td>Item No. 602S</td>
<td>Sodding for Erosion Control</td>
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<tr>
<td>Item No. 604S</td>
<td>Seeding for Erosion Control</td>
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<td>Item No.</td>
<td>Description</td>
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<tr>
<td>605S</td>
<td>Soil Retention Blanket</td>
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<tr>
<td>606S</td>
<td>Fertilizer</td>
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<tr>
<td>608S</td>
<td>Planting</td>
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<tr>
<td>610S</td>
<td>Preservation of Trees and Other Vegetation</td>
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**Texas Department of Transportation: Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges**

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<tr>
<td>Item No. 100</td>
<td>Preparing Right of Way</td>
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<td>Item No. 110</td>
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<td>Item No. 132</td>
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<td>Item No. 204</td>
<td>Sprinkling</td>
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