

Invitation to Bid and Construction Contract for TDA CDBG Grant Compliance

April 2025

Contract No. CDV23-0303



DOUCET
A Kleinfelder Company

Civil Engineering // Entitlements // Geospatial
Austin, Tx. (North & South) - Gonzales, Tx.
San Antonio, Tx. - Houston, Tx.
www.doucetengineers.com

GrantWorks

Planning, Housing, and Community
Development Services
for Rural Texas Since 1979

REQUIRED DOCUMENTS FOR INVITATIONS TO BID PACKET

Overview of Invitation to Bid and Contract Documents

*TDA REQUIRED ITEMS MARKED WITH **

INSTRUCTIONS/NOTICES TO BIDDER:

- ☐ Advertisement for Bids (1st notice must be at least 15 days prior to bid opening)*
- ☐ Instructions to Bidders*
- ☐ Section 3 Hiring, Reporting, and Outreach Requirements*
- ☐ Build America, Buy America Domestic Preference

TO BE COMPLETED BY BIDDER WITH BID SUBMISSION:

- ☐ Statement of Bidder's Qualifications*
- ☐ Conflict of Interest Questionnaire
- ☐ Non-collusion Affidavit of Prime Bidder*
- ☐ Bid Bond*
- ☐ Certification of Bidder Regarding Civil Rights Laws and Regulations*
- ☐ Contractor's Local Opportunity Plan
- ☐ Proposed Contracts Breakdown (expected subcontractors, labor classifications including Section 3)
- ☐ Certification Regarding Lobbying*
- ☐ Disclosure of Lobbying Activities and Instructions*
- ☐ Proof of SAM Clearance for Prime Contractor and Principals (insert if available)
- ☐ A400 Build America, Buy America Form*

CONTRACT, INCLUDING FORMS TO BE COMPLETED UPON CONTRACT AWARD:

- ☐ Construction Contract - Standard Form of Agreement*
- ☐ General Conditions for Construction*
- ☐ Required Notices to Contractors, including: *
 - Minority/Female Goals*
 - Federal Labor Standards Provisions (HUD 4010 language)*
 - Title 29 – Labor*
 - Concerning Labor Standards and Prevailing Wage Requirements*
 - Project specific Davis-Bacon Wage decision*
 - TDA - ORA Signage Requirements*
 - Required Contract Provisions (for subcontractors)*
- ☐ Forms to be completed/provided by Contractor upon award
 - Section 504 Certification

- Payment Bond*
 - Performance Bond*
 - Certificate of Liability Insurance
 - Certificate of Interested Parties Form 1295 and Instructions*
 - Attorney's Review Certification
- ☐ Copies of Template Project Forms, Including
- Change Order Form
 - Certificate of Construction Completion (COCC)
 - Final Payment Affidavit

Advertisement and Invitation for Bids

Updated December 2024

Austin County will receive bids for culvert crossing improvements and ditch stabilization to improve drainage along Grubbs Road from TX-36 to Mill Creek, Austin County, Texas until 3:00PM on Friday, May 9, 2025, at 1 E Main Street, Bellville, Texas 77418. The bids will be publicly opened and read aloud at 9:00AM on Monday, May 12, 2025, at 1 E Main Street, Bellville, Texas 77418.

Bids are invited for several items and quantities of work as follows:

1. Approximately one hundred thirty linear feet (130 LF) of culvert crossing with headwalls including rock riprap
2. Approximately fifteen thousand five hundred linear feet (15,500 LF) of street drainage ditch improvements

Bid/Contract Documents, including Drawings and Technical Specifications are on file at 1 E Main Street, Bellville, Texas 77418. Copies of the Bid/Contract Documents, including drawings and technical specifications (with option to purchase hard copies) may be obtained from www.CivcastUSA.com. Bidders must register on this website in order to view and/or download specifications and plans for this project. There is NO charge to view or download documents. A bid bond in the amount of 5 percent of the bid issued by an acceptable surety shall be submitted with each bid. A certified check or bank draft payable to Austin County or negotiable U.S. Government Bonds (as par value) may be submitted in lieu of the Bid Bond.

Attention is called to the fact that not less than the federally determined prevailing (Davis-Bacon and Related Acts) wage rate, as issued by the Texas Department of Agriculture Office of Rural Affairs and contained in the contract documents, must be paid on this project. In addition, the successful bidder must ensure that employees and applicants for employment are not discriminated against because of race, color, religion, sex, sexual identity, gender identity, or national origin. All contractors and subcontractors must be cleared (not suspended or debarred) prior to any formal action authorizing the award of a contract to the contractor. Minority Business Enterprises, Small Business Enterprises, Women Business Enterprises, Veteran-Owned Businesses, and Section 3 Businesses are encouraged to submit bids.

This solicitation is for services related to a project that is subject to the Build America, Buy America Act (BABA) requirements under Title IX of the Infrastructure Investment and Jobs Act. Absent an approved waiver, all iron, steel, manufactured products, and construction materials used in this project must be produced in the United States.

Austin County reserves the right to reject any or all bids or to waive any informalities in the bidding. Bids may be held by Austin County for a period not to exceed 30 / 60 days from the date of the bid opening for the purpose of reviewing the bids and investigating the bidder's qualifications prior to the contract award.

Section 3 Policy Issuance for Construction Contracts

Federal Revisions for Section 3 Requirements – TDA Policy Issuance CDBG 20-01 Effective Date: July 1, 2021

Applicability:

Section 3 of the Housing and Urban Development Act of 1968 requires that, to the greatest extent feasible, economic opportunity generated by CDBG funds and other HUD assistance, most importantly employment, is directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, as well as residents of the community in which the federal funds are spent.

- The requirements apply to the entire project that is funded with Section 3 covered financial assistance, regardless of whether the Section 3 project is fully- or partially-funded with CDBG assistance.
- All construction and administrative services contracts must comply with the requirements below.
- Section 3 goals and data reporting requirements generally do not apply to contracts for materials, planning, and professional services. Professional services include non-construction services that require an advanced degree or professional licensing (e.g., engineering, architecture, land surveying, accounting).

Construction Contractor Compliance Overview:

Please note that Federal rules do not require Austin County to contract or subcontract with a Section 3 business concern, nor do the rules require hiring of Section 3 workers. However, Austin County must be able to demonstrate that, where possible, contracting, employment, and training opportunities were made available to workers and businesses meeting Section 3 designation criteria.

Under the revised Section 3 Policy, Construction Contractors are required to complete the following. Please return all completed forms to your GrantWorks Project Manager or Labor Standards Specialist.

- ☐ Include required contract clauses in all construction contracts and subcontracts. See **Required Contract Clause- Section 3 Compliance Terms and Conditions**
- ☐ Complete the **Certification of Bidder Regarding Civil Rights Laws and Regulations**
- ☐ Demonstrate outreach efforts to recruit Section 3 residents for employment. See **Section 3 Requirements for Outreach and Reporting**
- ☐ Confirm the Section 3 Status of your business by doing ONE of the following:
 - Completing **Form A1023 Certification as Section 3 Business Concern**
 - Providing documentation (e.g. screenshot, print out) of your business' inclusion on any list or database published by HUD reporting Section 3 Status, such as HUD's Section 3 Business Registry - <https://portalapps.hud.gov/Sec3BusReg/BRegistry/BRegistryHome>
- ☐ Confirm the Section 3 Status of all employees by doing ONE of the following:

- Complete **Form A1022- Employer Certification Form for Section 3** listing all employees and their Section 3 Status (to be completed by prime contractor) -OR-
- Have each employee complete **Form GW1022- Employee Self-Certification Form for Section 3** and submit that form with their first payroll

Section 3 Definitions:

Section 3 is a provision of the Housing and Urban Development Act of 1968 for the purpose of ensuring that employment and other economic opportunities generated by certain HUD financial assistance shall, **to the greatest extent feasible**, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

Section 3 status may be applied to individuals designated by HUD as either **SECTION 3 WORKERS** or **TARGETED SECTION 3 WORKERS** and to businesses identified as **SECTION 3 BUSINESS CONCERNS**:

Section 3 Worker:

A Section 3 Worker is any worker who currently fits, or when hired within the past five years fit, at least one (1) of the following categories, as documented:

1. The worker's income for the previous or annualized calendar year is below the income limit established by HUD
2. The worker is employed by a Section 3 business concern; or
3. The worker is a YouthBuild participant

Targeted Section 3 Worker:

A Targeted Section 3 Worker for Housing and Community Development Financial Assistance Projects is a Section 3 Worker who:

1. Is employed by a Section 3 Business Concern; or
2. Currently fits or when hired fit at least one of the following categories, as documented within the past five (5) years:
 - a. Living within the service area or the neighborhood of the project; or
 - b. A YouthBuild participant

Residents based outside the project Service Area **DO NOT** qualify as Targeted Section 3 Workers. See attached Project Service Area Map for exact boundaries.

Section 3 Business Concern:

A Section 3 Business Concern is a business that meets at least one of the following criteria, documented within the last six (6) month period:

- 1) At least 51% owned and controlled by low- or very low-income persons;
- 2) Over 75% of the labor hours performed for the business over the prior three-month period are performed by Section 3 workers; or
- 3) A business at least 50% owned and controlled by current public housing residents or residents who currently live in Section 8-assisted housing.

Reporting of labor hours for Section 3 Compliance will be determined by employee hours on Payroll Reports. The Section 3 status of each employee must be documented on the following forms and submitted to the GrantWorks Labor Standards Specialist within 30 days of construction completion.

Section 3 Requirements for Outreach and Reporting

Contractors are required to access the following resources to identify potential Section 3 employees IF any new employees are needed, OR if vacancies exist for work on the project:

- Texas Workforce Solutions - <https://www.workintexas.com>; or
- Local Workforce Solutions Office (WIOA One Stop Shop), if applicable - <https://www.twc.texas.gov/directory-workforce-solutions-offices-services>

Job vacancies posted at <https://www.workintexas.com> should include the notation **Sec3** in the job title and job description. Instructions are attached. A copy of the posting must be provided for the project file.

While contractors are not required to employ Section 3 Workers, they must demonstrate an effort to identify potential employees as appropriate, including documentation for any applicants that are Section 3 Workers.

Similarly, all outreach efforts and attempts to comply with Section 3 guidelines, as well as any impediments encountered despite the efforts undertaken, as applicable.

Documentation of outreach efforts must be maintained and submitted to the GrantWorks Project Manager or Labor Standards Specialist.

Instructions to Bidders for Construction

1. Use of Separate Bid Forms

These contract documents include a complete set of bid and contract forms which are for the convenience of the bidders and are not to be detached from the contract document, completed or executed. Separate bid forms are provided for your use.

2. Interpretations or Addenda

No oral interpretations will be made to any bidder. Each request for clarification shall be made in writing to Austin County or engineer no less than seven (7) days prior to the bid opening. Each interpretation made will be in the form of an Addendum to the contract documents and will be distributed to all parties holding contract documents no less than seven (7) days prior to the bid opening. It is, however, the bidder's responsibility to make inquiry as to any addenda issued. All such addenda shall become part of the contract documents and all bidders shall be bound by such addenda, whether or not received by the bidders.

If an addendum to the bid package is necessary, it must be distributed to each potential bidder. The distribution of an addendum shall be verified either by statements of receipt or registered/certified mail receipts, which shall be included in the public works construction file. The addendum shall allow adequate time for consideration in bid preparation (usually at least one week). If adequate time is not available, the bid opening date must be extended and Austin County must republish the invitation for bids containing the place, time, and date for the new bid opening. Note that any change to the original bid opening date will require republication of the invitation for bids at least once in a locally published newspaper. The republished notice will include the place, time and date for the new bid opening and must be published at least seven days prior to the new bid opening date.

3. Inspection of Site

Each bidder should visit the site of the proposed work and should become acquainted with the existing conditions and facilities, the difficulties and restrictions pertaining to the performance of the contract. The bidder should thoroughly examine and become familiar with the drawings, technical specifications and all other contract documents. The contractor by the execution of the contract shall in no way be relieved of any obligation under it due to failure to receive or examine any form or legal document or to visit the site or the conditions existing at the site. The City/ County will be justified in rejecting any claim based on lack of inspection of the site prior to the bid.

4. Alternate bid items

No alternate bids or bid items will be considered unless they are specifically requested by the technical specifications.

OR

If Alternate A is selected, bid items 1 and 2 will be removed entirely from the base bid and replaced with alternate bid items A1 and A2 prior to determining the low bidder.

OR

If Deductive Alternate A is selected, the unit price for each corresponding base bid item will be applied to each deductive bid item. Do not alter the unit price in calculating the Deductive Alternate.

5. Bids

- a. All bids must be submitted on the forms provided and are subject to all requirements of the Contract Documents, including the Drawings.
- b. All bids must be regular in every respect and no interlineation, excisions or special conditions may be made or included by the bidder.
- c. Bid documents, including but not limited to the bid, the bid bond(s), the contractor's certifications, local opportunity plan, and the statement of the bidder's qualifications, shall be sealed in an envelope and clearly labeled with the words "Bid Documents", the project number, name of bidder and the date and time of bid opening.
- d. The City / County may consider as irregular any bid on which there is an alteration of or departure from the bid form and, at its option, may reject any irregular bid.
- e. If a contract is awarded, it will be awarded to a responsible bidder on the basis of the lowest/best bid and the selected alternate bid items, if any. The contract will require the completion of the work in accordance with the contract documents.

6. Bid Modifications Prior to Bid Opening

- a. Any bidder may modify its bid by submitting a modification or supplemental bid at any time prior to the scheduled closing time for receipt of bids, provided such modification or supplemental bid is received by the locality prior to the closing time. The modification or supplemental bid should not reveal the original bid price but should provide only the addition, subtractions or other modifications to the original bid so that the final prices or terms will not be known by the locality until the sealed bid is open.

7. Bid Bond

- a. A bid bond in the amount of 5% of the bid issued by an acceptable surety shall be submitted with each bid [for contracts greater than \$100, 000,]. A certified check or bank draft payable to the locality or negotiable U.S. Government Bonds (as par value) may be submitted in lieu of the Bid Bond.
- b. The bid bond or its comparable will be returned to the bidder as soon as practical after the opening of the bids.

8. Statement of Bidders Qualifications

Each bidder shall submit on the form furnished for that purpose a statement of the bidder's qualifications. Austin County shall have the right to take such steps as it deems necessary to determine the ability of the bidder to perform its obligations under the contract, and the bidder shall

furnish Austin County all such information and data for this purpose as it may request. The right is reserved to reject any bid where an investigation of the available data does not satisfy Austin County that the bidder is qualified to carry out properly the terms of the contract.

9. Unit Price

The unit price for each of the several items in the bid shall include its pro rata share of overhead so that the sum of the products obtained by multiplying the quantity shown for each item by the unit price bid represents the total bid. Any bid not conforming to this requirement may be rejected as informal.

The Department will sum the products of the quantities, and the unit prices bid in the proposal form, including any selected alternates, to determine the official total bid amount. The official total bid amount is the basis for determining the apparent low Bidder. The total bid amounts will be compared and the results made public.

Special attention is drawn to this condition, as the unit prices will be used to determine the total bid price and the amount of any change orders resulting from an increase or decrease in quantities.

10. Corrections

Erasures or other corrections in the bid must be noted over the signature of the bidder.

11. Time for Receiving Bids

Bids received prior to the advertised hour of opening shall be kept securely sealed. The officer appointed to open the bids shall decide when the specified time has arrived and no bid received thereafter will be considered; except that when a bid arrives by mail after the time fixed for opening, but before the reading of all other bids is completed, and it is shown to the satisfaction of Austin County that the late arrival of the bid was solely due to delay in the mail for which the bidder was not responsible, such bid will be received and considered.

12. Opening of Bids

The County shall, at the time and place fixed for the opening of bids, open each bid and publicly read it aloud, irrespective of any irregularities therein. Bidders and other interested individuals may be present.

13. Withdrawal of Bids

Bidder may withdraw the bid before the time fixed for the opening of bids, by communicating its purpose in writing to Austin County. Upon receipt of such notice, the unopened bid will be returned to the bidder. The bid guaranty of any bidder withdrawing his bid will be returned promptly.

14. Award of Contract/Rejection of Bids

- a. The contract will be awarded to the responsive, responsible Bidder submitting the lowest/best bid. The bidder selected will be notified at the earliest possible date.

The locality reserves the right to reject any or all bids and to waive any informality in bids received where such rejection or waiver is in its interest.

- b. Austin County reserves the right to consider as unqualified to do the work any bidder who does not habitually perform with his own forces the major portions of the work involved in construction of the improvements embraced in this contract.

15. Execution of Agreement/Performance and Payment Bonds

- a. Performance Bonds - Requires all prime contractors which enter into a formal contract in excess of \$100,000 with the State, a county, or a municipality; a department, board, or agency of the state, a county, or a municipality; and a school district or a subdivision thereof, to obtain a Performance Bond in the amount of the contract before commencing with work
- b. Payment Bonds- Requires all prime contractors which enter into a formal contract with the State, a county, or a municipality; a department, board, or agency of the state, a county, or a municipality; and a school district or a subdivision thereof, to furnish to the governmental entity a payment bond in the amount of the contract. The payment bond must be filed within 30 days from the date of the Notice of Award:
 - o Municipalities: If the contract is in excess of \$50,000, a payment bond is required.
 - o Counties: If the contract is in excess of \$25,000, a payment bond is required.
- c. The failure of the successful bidder to execute the agreement and supply the required bonds within thirty (30) days from the date of the notice of award-or within such extended period as the locality may grant, shall constitute a default and the locality may, at its option, either award the contract to the next lowest responsible bidder, or re-advertise for bids. In either case, the locality may charge against the bidder the difference between the amount of the bid, and the amount for which a contract is subsequently executed irrespective of whether this difference exceeds the amount of the bid bond. If a more favorable bid is received through re-advertisement, the defaulting bidder shall have no claim against the locality for a refund.

16. Wages and Salaries

Attention is particularly called to the requirement of paying not less than the prevailing Davis Bacon Related Acts (DBRA) wage rates specified in the Contract Documents. These rates are minimums to be paid during the life of the contract. It is therefore the responsibility of the Bidder to inform themselves as to local labor conditions.

17. Equal Employment Opportunity

Attention is called to the requirements for ensuring that employees and applicants for employment are not discriminated against because of race, color, religion, sex, sexual identity, gender identity, or national origin, and other civil rights requirements.

18. Certification Regarding Lobbying –

Contractors who apply or bid for an award of \$100,000 or more shall provide the required certification that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining a Federal contract, grant or any other award covered by 31 USC § 1352.

19. Build America, Buy America (BABA) – Domestic Preference

Pursuant to the Buy America Build America Act (BABA), Grant Recipients that receive funding for infrastructure project must ensure that:

- (1) all iron and steel used in the project are produced in the United States - this means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States;

The Buy America preference only applies to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor does a Buy America preference apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

Documentation of BABA compliance must be provided for a minimum of 95% of all iron, steel, manufactured products, and construction materials used in the project. The bidder must provide an itemization to identify the products, quantities, and costs as support documentation using Form A400 included in this solicitation. The bid tab is generally not sufficiently detailed to itemize each separate product or material.

All contractors must provide written evidence from the manufacturer or supplier that:

- Identifies the item purchased;
- Affirms the location of manufacture as within the United States; and
- If signed by an authorized company representative.

A form, A400 and its instructions (form A401) are provided with this packet to assist in compliance with these requirements.

ROADWAY:	GRUBBS RD					BID FORM
COUNTY:	AUSTIN					
FILENAME:	CDV23-0303_GRUBBS RD IMPROVEMENTS_BID FORM					
DESCRIPTION:	ROADWAY AND DRAINAGE IMPROVEMENTS FOR GRUBBS RD					
LIMITS:	GRUBBS RD @ GRANADA RD TO GRUBBS RD @ MILL CREEK					
LENGTH:	APPROX 15,500 LF					
PLAN QTYS BY:	DOUCET & ASSOCIATES, INC.					
DATE:	4/14/2025					
BIDDERS: ENTER UNIT PRICES INTO YELLOW CELLS. ALL OTHER CELLS LOCKED FOR CALCULATION OF TOTAL BID.						
ITEM NO	DESC. CODE	DESCRIPTION	UNIT	EST QTY	UNIT PRICE	TOTAL
SITE A LOCATION						
500	6001	MOBILIZATION	LS	1	\$ -	\$ -
100	6002	PREPARING ROW	STA	1	\$ -	\$ -
100	6006	PREP ROW (TREE)(LESS THAN 24" DIA)	EA	1	\$ -	\$ -
100	6007	PREP ROW (TREE)(GREATER THAN 24" DIA)	EA	1	\$ -	\$ -
104	6067	REMOVING CONC (SAWCUT)	LF	40	\$ -	\$ -
105	6015	REMOVING STAB BASE & ASPH PAV (8"-10")	SY	30	\$ -	\$ -
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	48	\$ -	\$ -
164	6023	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY)	SY	48	\$ -	\$ -
169	6005	SOIL RETENTION BLANKETS (CL 2) (TY E)	SY	48	\$ -	\$ -
216	6001	PROOF ROLLING	HR	4	\$ -	\$ -
247	6231	FL BS (CMP IN PLACE)(TY A GR 1-2)(10")	SY	47	\$ -	\$ -
316	6224	AGGR(TY-PB GR-4 SAC-B)	CY	2	\$ -	\$ -
316	4024	ASPH(AC15P OR AC-10-2TR OR CRS-2P)	GAL	78	\$ -	\$ -
316	6027	PRIME COAT(MC-30 OR AE-P)	GAL	33	\$ -	\$ -
432	6024	RIPRAP (STONE COMMON)(DRY)(12 IN)	CY	0	\$ -	\$ -
460	6003	CMP (GAL STL 24 IN)	LF	0	\$ -	\$ -
462	6032	CONC BOX CULV (5 FT X 3 FT)	LF	114	\$ -	\$ -
466	6185	WINGWALL (PW - 2) (HW=10 FT)	EA	1	\$ -	\$ -
496	6043	REMOV STR (SMALL FENCE)	LF	0	\$ -	\$ -
496	6007	REMOV STR (PIPE)	LF	127	\$ -	\$ -
496	6008	REMOV (SMALL SIGNS & OBJECT MARKERS)	EA	1	\$ -	\$ -
506	6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	EA	1	\$ -	\$ -
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	130	\$ -	\$ -
506	6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	20	\$ -	\$ -
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	2	\$ -	\$ -
506	6010	CONCRETE WASHOUT PIT	EA	1	\$ -	\$ -
506	6012	DEWATERING	LS	1	\$ -	\$ -
SITE A LOCATION TOTAL:						\$ -

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ITEM NO	DESC. CODE	DESCRIPTION	UNIT	EST QTY	UNIT PRICE	TOTAL
SITE B LOCATION						
500	6001	MOBILIZATION	LS	1	\$ -	\$ -
100	6002	PREPARING ROW	STA	1	\$ -	\$ -
100	6006	PREP ROW (TREE)(LESS THAN 24" DIA)	EA	1	\$ -	\$ -
100	6007	PREP ROW (TREE)(GREATER THAN 24" DIA)	EA	1	\$ -	\$ -
104	6067	REMOVING CONC (SAWCUT)	LF	40	\$ -	\$ -
105	6015	REMOVING STAB BASE & ASPH PAV (8"-10")	SY	30	\$ -	\$ -
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	48	\$ -	\$ -
164	6023	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY)	SY	79	\$ -	\$ -
169	6005	SOIL RETENTION BLANKETS (CL 2) (TY E)	SY	79	\$ -	\$ -
216	6001	PROOF ROLLING	HR	4	\$ -	\$ -
247	6231	FL BS (CMP IN PLACE)(TY A GR 1-2)(10")	SY	47	\$ -	\$ -
316	6224	AGGR(TY-PB GR-4 SAC-B)	CY	2	\$ -	\$ -
316	4024	ACPH(AC15P OR AC-10-2TR OR CRS-2P)	GAL	78	\$ -	\$ -
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432	6024	RIPRAP (STONE COMMON)(DRY)(12 IN)	CY	0	\$ -	\$ -
460	6003	CMP (GAL STL 24 IN)	LF	0	\$ -	\$ -
462	6032	CONC BOX CULV (5 FT X 3 FT)	LF	100	\$ -	\$ -
466	6185	WINGWALL (PW - 2) (HW=10 FT)	EA	1	\$ -	\$ -
496	6043	REMOV STR (SMALL FENCE)	LF	24	\$ -	\$ -
496	6007	REMOV STR (PIPE)	LF	120	\$ -	\$ -
496	6008	REMOV (SMALL SIGNS & OBJECT MARKERS)	EA	0	\$ -	\$ -
506	6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	EA	1	\$ -	\$ -
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	120	\$ -	\$ -
506	6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	20	\$ -	\$ -
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	2	\$ -	\$ -
506	6010	CONCRETE WASHOUT PIT	EA	1	\$ -	\$ -
506	6012	DEWATERING	LS	1	\$ -	\$ -
SITE B LOCATION TOTAL:						\$ -

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104	6067	REMOVING CONC (SAWCUT)	LF	60	\$ -	\$ -
105	6015	REMOVING STAB BASE & ASPH PAV (8"-10")	SY	35	\$ -	\$ -
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	60	\$ -	\$ -
164	6023	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY)	SY	87	\$ -	\$ -
169	6005	SOIL RETENTION BLANKETS (CL 2) (TY E)	SY	87	\$ -	\$ -
216	6001	PROOF ROLLING	HR	4	\$ -	\$ -
247	6231	FL BS (CMP IN PLACE)(TY A GR 1-2)(10")	SY	60	\$ -	\$ -
316	6224	AGGR(TY-PB GR-4 SAC-B)	CY	2	\$ -	\$ -
316	4024	ACPH(AC15P OR AC-10-2TR OR CRS-2P)	GAL	78	\$ -	\$ -
316	6027	PRIME COAT(MC-30 OR AE-P)	GAL	33	\$ -	\$ -
432	6024	RIPRAP (STONE COMMON)(DRY)(12 IN)	CY	0	\$ -	\$ -
462	6032	STORM DRAIN PIPE (36 IN)	LF	120	\$ -	\$ -
466	6185	WINGWALL (PW - 2) (HW=10 FT)	EA	2	\$ -	\$ -
496	6043	REMOV STR (SMALL FENCE)	LF	0	\$ -	\$ -
496	6007	REMOV STR (PIPE)	LF	80	\$ -	\$ -
496	6008	REMOV (SMALL SIGNS & OBJECT MARKERS)	EA	0	\$ -	\$ -
506	6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	EA	1	\$ -	\$ -
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	90	\$ -	\$ -
506	6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	15	\$ -	\$ -
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	2	\$ -	\$ -
506	6010	CONCRETE WASHOUT PIT	EA	1	\$ -	\$ -
506	6012	DEWATERING	LS	1	\$ -	\$ -
SITE C LOCATION TOTAL:						\$ -

ROADWAY:	GRUBBS RD					BID FORM
COUNTY:	AUSTIN					
FILENAME:	CDV23-0303_GRUBBS RD IMPROVEMENTS_BID FORM					
DESCRIPTION:	ROADWAY AND DRAINAGE IMPROVEMENTS FOR GRUBBS RD					
LIMITS:	GRUBBS RD @ GRANADA RD TO GRUBBS RD @ MILL CREEK					
LENGTH:	APPROX 15,500 LF					
PLAN QTYS BY:	DOUCET & ASSOCIATES, INC.					
DATE:	4/14/2025					
BIDDERS: ENTER UNIT PRICES INTO YELLOW CELLS. ALL OTHER CELLS LOCKED FOR CALCULATION OF TOTAL BID.						
ITEM NO	DESC. CODE	DESCRIPTION	UNIT	EST QTY	UNIT PRICE	TOTAL
SITE D LOCATION						
500	6001	MOBILIZATION	LS	1	\$ -	\$ -
100	6002	PREPARING ROW	STA	1	\$ -	\$ -
100	6006	PREP ROW (TREE)(LESS THAN 24" DIA)	EA	1	\$ -	\$ -
100	6007	PREP ROW (TREE)(GREATER THAN 24" DIA)	EA	1	\$ -	\$ -
104	6067	REMOVING CONC (SAWCUT)	LF	40	\$ -	\$ -
105	6015	REMOVING STAB BASE & ASPH PAV (8"-10")	SY	26	\$ -	\$ -
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	43	\$ -	\$ -
164	6023	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY)	SY	74	\$ -	\$ -
169	6005	SOIL RETENTION BLANKETS (CL 2) (TY E)	SY	74	\$ -	\$ -
216	6001	PROOF ROLLING	HR	4	\$ -	\$ -
247	6231	FL BS (CMP IN PLACE)(TY A GR 1-2)(10")	SY	42	\$ -	\$ -
316	6224	AGGR(TY-PB GR-4 SAC-B)	CY	1	\$ -	\$ -
316	4024	ACPH(AC15P OR AC-10-2TR OR CRS-2P)	GAL	39	\$ -	\$ -
316	6027	PRIME COAT(MC-30 OR AE-P)	GAL	17	\$ -	\$ -
432	6024	RIPRAP (STONE COMMON)(DRY)(12 IN)	CY	0	\$ -	\$ -
462	6032	STORM DRAIN PIPE (36 IN)	LF	105	\$ -	\$ -
466	6185	WINGWALL (PW - 2) (HW=10 FT)	EA	2	\$ -	\$ -
496	6043	REMOV STR (SMALL FENCE)	LF	0	\$ -	\$ -
496	6007	REMOV STR (PIPE)	LF	70	\$ -	\$ -
496	6008	REMOV (SMALL SIGNS & OBJECT MARKERS)	EA	0	\$ -	\$ -
506	6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	EA	1	\$ -	\$ -
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	90	\$ -	\$ -
506	6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	15	\$ -	\$ -
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	2	\$ -	\$ -
506	6010	CONCRETE WASHOUT PIT	EA	1	\$ -	\$ -
506	6012	DEWATERING	LS	1	\$ -	\$ -
SITE D LOCATION TOTAL:						\$ -

ROADWAY:	GRUBBS RD					BID FORM
COUNTY:	AUSTIN					
FILENAME:	CDV23-0303_GRUBBS RD IMPROVEMENTS_BID FORM					
DESCRIPTION:	ROADWAY AND DRAINAGE IMPROVEMENTS FOR GRUBBS RD					
LIMITS:	GRUBBS RD @ GRANADA RD TO GRUBBS RD @ MILL CREEK					
LENGTH:	APPROX 15,500 LF					
PLAN QTYS BY:	DOUCET & ASSOCIATES, INC.					
DATE:	4/14/2025					
BIDDERS: ENTER UNIT PRICES INTO YELLOW CELLS. ALL OTHER CELLS LOCKED FOR CALCULATION OF TOTAL BID.						
ITEM NO	DESC. CODE	DESCRIPTION	UNIT	EST QTY	UNIT PRICE	TOTAL
DITCH STABILIZATION AREAS & MISC.						
500	6001	MOBILIZATION	LS	1	\$ -	\$ -
100	6002	PREPARING ROW	STA	1	\$ -	\$ -
100	6006	PREP ROW (TREE)(LESS THAN 24" DIA)	EA	1	\$ -	\$ -
100	6007	PREP ROW (TREE)(GREATER THAN 24" DIA)	EA	1	\$ -	\$ -
110	6003	EXCAVATION (SPECIAL)	CY	210	\$ -	\$ -
160	6003	FURNISHING AND PLACING TOPSOIL (4")	SY	302	\$ -	\$ -
164	6023	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY)	SY	302	\$ -	\$ -
169	6005	SOIL RETENTION BLANKETS (CL 2) (TY E)	SY	302	\$ -	\$ -
432	6024	RIPRAP (STONE COMMON)(DRY)(12 IN)	CY	210	\$ -	\$ -
506	6020	CONSTRUCTION EXITS (INSTALL) (TY 1)	EA	8	\$ -	\$ -
506	6038	TEMP SEDMT CONT FENCE (INSTALL)	LF	600	\$ -	\$ -
506	6001	ROCK FILTER DAMS (INSTALL) (TY 1)	LF	82	\$ -	\$ -
502	6001	BARRICADES, SIGNS AND TRAFFIC HANDLING	LS	3	\$ -	\$ -
506	6012	DEWATERING	LS	1	\$ -	\$ -
DITCH STABILIZATION AREAS & MISC. TOTAL:						\$ -
SITE A LOCATION TOTAL:						\$ -
SITE B LOCATION TOTAL:						\$ -
SITE C LOCATION TOTAL:						\$ -
SITE D LOCATION TOTAL:						\$ -
DITCH STABILIZATION & MISC. TOTAL						\$ -
PROJECT TOTAL:						\$ -

Statement of Bidder's Qualifications

This statement must be notarized. All questions must be answered, and the data given must be clear and comprehensive. If necessary, questions may be answered on separate attached sheets. The Bidder may submit any additional information it desires.

Date: _____

Bidder
(Legal Name of Firm): _____

Date Organized: _____

Name of Owner(s): _____

Address: _____

Date Incorporated: _____

Federal ID Number: _____

Number of Years in contracting
business under present name _____

List all other names under which your business has operated in the last 10 years:

Work Presently Under Contract:

Contract	\$ Amount	Completion Date

*Attach additional sheets if
necessary*

Type of work performed by your company: _____

Total Staff employed by Firm (Include breakdown by Managers and Trades on separate sheet):

Have you ever failed to complete any work awarded to you? *(If yes, please attach summary on a separate sheet. Include brief explanation of cause and resolution)*

Yes ☐ No

Have you ever defaulted on a contract? *(If yes, please attach summary of details on a separate sheet.)*

Yes ☐ No

Has your organization had any disbarments or suspensions that have been imposed in the past five years or that was still in effect during the five-year period or is still in effect? *(If yes, list and explain; such list must include disbarments and suspensions of officers, principals, partners, members, and employees of your organization.)*

Yes ☐ No

List the projects most recently completed by your firm (include project of similar importance):

Project	\$ Amount	Month/Year Completed

Attach additional sheets if necessary

Major equipment available for this contract:

Are you in compliance with all applicable EEO requirements? *(If no, please attach details on separate sheet.)*

Yes ☐ No

(Optional) Minority Business Reporting Information:

Owner's Race: _____

Owner's Ethnicity: _____

Owner's Gender: _____

Are you a Section 3 business? Yes No

Section 3 Business Concerns:

- a) Businesses that are 51 percent or more owned by Section 3 residents;*
- b) Businesses whose permanent, full-time employees include persons, at least 30 percent of whom are currently Section 3 residents, or within three years of the date of first employment with the firm were Section 3 residents;*
- c) Businesses that provide evidence of a commitment to subcontract in excess of 25 percent of the dollar amount of all subcontracts to be awarded to businesses that meet the qualifications described above; or*
- d) Businesses located within Austin County's jurisdiction that identifies themselves as Section 3 Business Concerns because they provide economic opportunities for low- and very low-income persons.*

Bank References

Address: _____ Contact _____ Name: _____

City & State: _____ Zip: _____ Phone Number: _____

Credit available: \$ _____

Has the firm or predecessor firm been involved in a bankruptcy or reorganization? *(If yes, please attach summary of details on a separate sheet.)*

Yes ☐ No

Additional Attachments

List on a sheet attached hereto all judgements, claims, arbitration proceedings, or suits pending or outstanding against bidder over the last five (5) years with amount of claim and brief description.

List on a sheet attached hereto all lawsuits or requested arbitration with regard to construction contracts which bidder has initiated within the last five (5) years and brief explanation of claim and outcome.

Attach resume(s) for the principal member(s) of your organization, including the officers as well as the proposed superintendent for the project.

Signed this _____ day of _____, 20____.

Signature

Printed Name and Title

Company Name

Notary Statement:

_____. being duly sworn, says that he/she is the
_____ Position/Title _____ of _____ (Firm Name), and hereby
swears that the answers to the foregoing questions and all statements therein contained are true
and correct. He/she hereby authorizes and requests any person, firm, or corporation to furnish
any information requested County of _____ in verification of the recitals
comprising this Statement of Bidder's Qualifications.

Subscribed and sworn before me this _____ day of _____, 20____.

Signature of Notary Public

Printed Name

My Commission Expires: _____.

The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

Proposed Contracts Breakdown

Type of Contracts – list all construction, materials, or other types of subcontracts (for example: electrical, plumbing, concrete, boring, etc.)

No. of Contracts – Number of contracts under this category

Approximate Total Dollar Amount – Total amount of each contract

Estimated No. to Local Business – Number of contracts awarded to local businesses and Section 3 businesses

Estimated \$ Amount to Local Business - How many dollars will be spent locally for each type of contract? For example: will you hire any local employees or subcontractors?

Estimated Project Workforce Breakdown

Work Classifications – Classification of project employees as defined on Wage Rate

Total Estimated Positions – List the number employees for each work classification will you need on this project

Number of Positions Currently Filled – List the number of estimated positions you currently have filled

Number of Positions Not Filled – List the number of estimated positions you currently do not have filled

Number of Positions to Fill with Low to Moderate Income (Section 3) Residents – List the number of local residents earning low to moderate incomes that you plan to employ to fill the estimated positions not filled

PROPOSED CONTRACTS BREAKDOWN

Type of Contracts	No. of Contracts	Approx. Total Dollar Amount	Estimated No. to local Business	Estimated \$ Amount Local Business

ESTIMATED PROJECT WORKFORCE BREAKDOWN

Work Classifications	Total Estimated Positions	No. of Positions Currently Filled	No. of Positions not Filled	No. of Positions to fill with LMI Residents (Section 3)
Totals				

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐

Yes

☐

No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐

Yes

☐

No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

Date

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of Texas)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ of _____, the Bidder that has submitted the attached Bid;

(2) He/She is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham Bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with another Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached Bid or of any other Bidder, or to fix an overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the _____ (Local Public Agency) or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Title

Subscribed and sworn to me this _____ day of _____.

By: _____
Notary Public

My commission expires _____

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned, _____, as PRINCIPAL, and _____, as SURETY are held and firmly bound unto (County) hereinafter called the "Local Public Agency", in the penal sum of _____ Dollars, (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the Accompanying Bid, dated _____, for _____

NOW, THEREFORE, the Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or, if no period be specified, within thirty (30) days after the said opening, and shall within the period specified therefor, or if no period be specified, within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the Local Public Agency in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such bond within the time specified, if the Principal shall pay the Local Public Agency the difference between the amount specified in said Bid and the amount for which the local Public Agency may procure the required work or supplies or both, if the latter be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS THEREOF, the above parties have executed this instrument this _____ day of _____, the name and corporate seal of each corporate party being hereto affixed and these present signed by its undersigned representative, pursuant to authority of its governing body.

(SEAL)

(SEAL)

Attest: By: _____

Affix Corporate Seal

Attest: By: _____

Affix Corporate Seal

Attest: By: _____

Countersigned

By

* Attorney-in-Fact, State of Texas

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the Secretary of the Corporation named as Principal in the bid bond; that _____, who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his/her signature, and his/her signature thereto is genuine; and that said bond was duly signed, sealed, and attested to, on behalf of said corporation by authority of its governing body.

Corporate

Seal

Title: _____

* Power-of-attorney for person signing for Surety Company must be attached to bond.

U.S. Department of Housing and Urban Development-

Certification of Bidder Regarding Civil Rights Laws and Regulations

U.S. Department of Housing and Urban Development	
CERTIFICATION OF BIDDER REGARDING CIVIL RIGHTS LAWS AND REGULATIONS	
INSTRUCTIONS	
CERTIFICATION OF BIDDER REGARDING Executive Order 11246 and Federal Laws Requiring Federal Contractor to adopt and abide by equal employment opportunity and affirmative action in their hiring, firing, and promotion practices. This includes practices related to race, color, gender, religion, national origin, disability, and veterans' rights.	
NAME AND ADDRESS OF BIDDER (include ZIP Code)	
CERTIFICATION BY BIDDER	
Bidder has participated in a previous contract or subcontract subject to Civil Rights Laws and Regulations. <input type="checkbox"/> Yes <input type="checkbox"/> No	
The undersigned hereby certifies that: <input type="checkbox"/> The <u>Provision of Local Training, Employment, and Business Opportunities</u> clause (Section 3 provision) is included in the Contract. <input type="checkbox"/> The <u>Equal Opportunity</u> clause is included in the Contract (if bid equals or exceeds \$10,000).	
Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended? <input type="checkbox"/> Yes <input type="checkbox"/> No	
NAME AND TITLE OF SIGNER (Please type)	
SIGNATURE	DATE

Contractor's Local Opportunity Plan

(name of company) agrees to implement the following specific affirmative action steps directed at increasing the utilization of lower income residents and businesses within the (County) of _____.

- i) To ascertain from the County's CDBG program official the exact boundaries of the project area and where advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.
- ii) To attempt to recruit from within the city the necessary number of lower income residents through: local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within and servicing the project area such as Service Employment and Redevelopment (SER), Opportunities Industrialization Center (OIC), Urban League, Concentrated Employment Program, Hometown Plan, or the U.S. Employment Service.
- iii) To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- iv) To insert this plan in all bid documents and to require all bidders on subcontracts to submit an affirmative action plan including utilization goals and the specific steps planned to accomplish these goals.
- v) To ensure that subcontracts (greater than \$10,000), which are typically let on a negotiated rather than a bid basis in areas other than the covered project area, are also let on a negotiated basis, whenever feasible, in a covered project area.
- vi) To formally contact unions, subcontractors, and trade associations to secure their cooperation in this effort.
- vii) To ensure that all appropriate project area business concerns are notified of pending sub-contractual opportunities.
- viii) To maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.
- ix) To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this plan.

- x) To maintain records concerning the amount and number of contracts, subcontracts, and purchases which contribute to objectives.
- xi) To maintain records of all projected work force needs for all phases of the project by occupation, trade, skill level, and number of positions and to update these projections based on the extent to which hiring meets these Local Opportunity objectives.

As officers and representatives of _____ (name of company) _____, we the undersigned have read and fully agree to this Plan and the Grantee's Section 3 Plan and become a party to the full implementation of the program and its provisions.

Signature

Printed Name

Title

Date

Certification Regarding Lobbying

The undersigned certifies, to the best of his or her knowledge and belief, that:

(a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(c) The undersigned shall require that the language paragraph 1 and 2 of this anti-lobbying certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995).

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Printed Name and Title of Contractor's Authorized Official

Date

Disclosure of Lobbying Activities

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1) Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2) Identify the status of the covered Federal action.
- 3) Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
- 4) Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5) If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
- 6) Enter the name of the federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7) Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.

- 8) Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitations for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Included prefixes, e.g., "RFP-DE-90-001."
- 9) For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action. (b) Enter the full names of the individual(s) performing services and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
- 11) The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503

Disclosure of Lobbying Activities

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 (See reverse for public burden disclosure)

1. Type of Federal Action: a. contract ____ b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application ____ b. initial award c. post-award	3. Report Type: a. initial filing ____ b. material change For material change only: Year _____ quarter _____ Date of last report _____
4. Name and Address of Reporting Entity: ____ Prime ____ Subawardee Tier _____, if Known: Congressional District, <i>if known</i> :	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: Congressional District, <i>if known</i> :	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, <i>if applicable</i> : _____	
8. Federal Action Number, <i>if known</i> :	9. Award Amount, <i>if known</i>: \$	
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI):	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only	Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)	

Buy America, Build America Instructions

For each TxCDBG Grant complete the below table with **ALL** construction materials to be used, identifying the bid item most closely associated with each material for reference only. This form is filled out prior to construction and must be updated with every change order and submitted pay application. An interactive Excel version is available upon request.

NOTE: Replace all sample text with true project materials and as needed continue with the **yellow** cells. (All other cells are locked.)

Material certifications are not required with the bid documents. Certifications will be submitted with pay applications for the awarded contractor. Leave this column blank in the bid proposal.

Austin County may use the covered product list provided by the Texas Water Development Board as a guide and safe harbor for identifying products subject to BABA. (See pages 6-11 of Build America, Buy America (BABA) Act Guidance

(TWDB-0559) <https://www.twdb.texas.gov/financial/instructions/doc/TWDB-0559.pdf?d=6041.5>



BABA Compliance Form

A400

Grant Agreement #:		Payment Request#:		Material Total:		\$ 145,000.00		
Grantee Name:				BABA Total:		\$ 140,000.00		
	Material Description	Related Bid Item #	Material Unit of Measure	Material Qty.	Material Unit Cost	Material Sub Total	% of total BABA Applicable Materials (based on BABA Minimum)	Mfr's Certification Included?
1	Rebar (Curb & Gutter) (SAMPLE, REMOVE AS NEEDED)	01A	LF	1000	\$ 100.00	\$ 100,000.00	71.4%	Attached
2	Cement Aggregate (Curb & Gutter) (SAMPLE, REMOVE AS NEEDED)	01A	SY	500	\$ 10.00	\$ 5,000.00	0.0%	Not BABA Applicable
3	Rebar (Curb Stops) (SAMPLE, REMOVE AS NEEDED)	02A	EA	25	\$ 1,000.00	\$ 25,000.00	17.9%	Attached
4	Iron Benches (SAMPLE, REMOVE AS NEEDED)	CO-01	EA	1	\$ 5,000.00	\$ 5,000.00	3.6%	No, 5%
5	Bronze Plaque (SAMPLE, REMOVE AS NEEDED)	CO-02	LS	1	\$ 10,000.00	\$ 10,000.00	7.1%	No, Exempted Phase
6						\$ -	0.0%	
7						\$ -	0.0%	
8						\$ -	0.0%	
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BABA Checklist & Best Practices

BABA Activities Checklist

ACTIVITY	Consultant	Engineer/ Architect	Contractor
A. Pre-Award			
While preparing the bid packet, identify bid items that will, or are likely to include BABA Applicable Materials.			
Include BABA Requirements when advertising for bids to ensure responsible bid responses.			
B. Post-Award			
Finalize list of all materials based on the bid awarded.			
Fill out Form A400 with the initial list of <i>all</i> materials to be used in the project & upload to the Group B Performance Report in TDA-GO.			
As materials are ordered, request a Manufacturer's Certification for all BABA-applicable materials that are included in the current and all previous BABA Implementation Phases.			
Review and update the A400 as necessary with each submitted Change Order or Construction MSR.			
C. Payment Requests			
Submit an updated Form A400 & all <i>new</i> Manufacturer's Certifications with <i>each</i> payment request for Construction funds.			
D. Satisfy BABA Special Condition			
Upload the <i>final</i> Form A400 to the Special Condition on the Grant Overview page in TDA-GO.			

BABA Best Practices

Documenting Materials on Form A400:

- The purpose of Form A400 is to document **ALL** materials being used in a project to ensure BABA compliance. Even materials that are not BABA Applicable should be listed so TDA can ensure all compliance requirements are met and provide appropriate Technical Assistance to help prevent potential Findings.
- Form A400 requests the Related Bid Item # for each Material Description. However, this form should list all materials, not necessarily all bid items.
 - Some materials (such as fasteners) may be used across multiple bid items. For ease of reporting, these materials may be listed once with each associated Bid Item # noted rather than listing them out separately for each Related Bid Item #.
 - Some bid items (such as Curb & Gutter) may use multiple different materials (Cement Aggregate & Rebar). Each material should be listed separately (to the extent feasible).

- When submitting Form A400 with the Group B Performance Report, not all information may be known (such as the Material Unit Cost). TDA will just be looking for the Material Description, Bid Item #, and Quantity. If the material listed is not BABA Applicable or exempt under the current phased implementation, please mark that in the Mfg's Certification column.
- Anytime there is a change to the materials being used (such as on a Change Order adding new bid items or when awarding a second Construction Contract that includes substantially different work), please ensure Form A400 is updated and submitted in TDA-GO in the Additional Documentation attachment field. For quantity-only Change Orders, ensure the A400 submitted on all subsequent Payment Requests is updated to reflect those changes.
- TDA has provided two lists of materials that may be used as guides and safe harbor for identifying materials subject to BABA. The first list is published by the Texas Water Development Board and can be found [HERE](#). The second list is included in the Orange "Phased Implementation Schedule" tab at the bottom of the Form A400.

Payment Request Procedures:

- Each time a Payment Request is submitted for Construction funds, an updated Form A400 is required to be uploaded to the Request.
- The first time Construction funds are requested for a specific bid item, all Manufacturer's Certifications for materials associated with that bid item must be submitted with the Payment Request (mark the Mfg's Certification column on Form A400 as "Attached"). If a Manufacturer's Certification has already been submitted for a specific material in a previous payment request, it does not need to be re-submitted (mark the Mfg's Certification column on Form A400 as "Submitted").

Satisfying BABA Special Condition:

- When submitting the final payment request for 100% of construction funds, upload the finalized Form A400 to the Special Condition upload field on the Grant Overview Page in TDA-GO. TDA is not notified when a change is made to the Grant Overview page, as such, please email your TDA Grant Specialist whenever uploading any document to this page. Once notified, your TDA Grant Specialist will mark the Special Condition as complete.

Mfg's Certification Option Meanings:

OPTION	Meaning
Attached	The Manufacturer's Certification for this material is attached to this Payment Request
Submitted	The Manufacturer's Certification for this material was submitted with a previous Payment Request
No, 5%	This material is BABA Applicable but is part of a <i>De Minimis</i> portion of the project.*
No, Exempted Phase	This material is BABA Applicable but is not required to be reported under the current Implementation Phase. A Manufacturer's Certification is not required to be submitted.
Not BABA Applicable	This material is not BABA Applicable under any phase, and no Manufacturer's Certification is needed.

**HUD has waived the application of the Buy America Preference for a De Minimis portion of an infrastructure project, meaning a cumulative total of no more than 5% of the total cost of the iron, steel, manufactured products, and construction materials used in and incorporated into the infrastructure project, up to a maximum of \$1 million. Grant Recipients are not required to submit BABA documentation for materials claimed as part of the De Minimis. Use the % column on Form A400 to determine if a material may be included in the De Minimis. The total % of all materials claimed as part of the De Minimis must be less than or equal to 5%. Only BABA Applicable materials are used to calculate the De Minimis.*

Categorization of Materials:

- Materials should only be classified into one of the following categories to determine when BABA requirements apply:
 - BABA Applicable Materials:
 - Iron or steel products;
 - Construction materials; or
 - Manufactured products.
 - BABA-Exempt Materials:
 - Section 70917(c) materials.
- Each material should be classified in only one of the categories listed above. In some cases, a material may not fall under any of the categories listed here.
 - HUD has provided clarification regarding *when* materials should be categorized. **The classification of a material must be made based on its status at the time it is brought to the work site.** Section 70917(c) materials that are used at the work site, such as wet concrete or hot asphalt, are not subject to BABA requirements. However, Section 70917(c) materials may be components of manufactured products if, for example, they are used to produce precast concrete products before being transported to the work site. In this case, as a component of a manufactured product, the Section 70917(c) material would be subject to BABA requirements.

Documentation of BABA Compliance:

- TDA will accept the following as proof of BABA compliance.
 - A copy of the label indicating the material was made in the United States;
 - A copy of the product description or technical specifications that provides sufficient detail to conclude that the materials comply with BABA;
 - A certificate or other documentation from the manufacturer demonstrating that the materials comply with BABA;
 - A signed certification from the contractor of a project certifying compliance with BABA; or
 - **If a contractor is certifying BABA compliance, please utilize Form A402**
 - A signed certification from the manufacturer of the materials certifying compliance with BABA.

BABA Definitions

Materials:

- Materials: The term “materials” is used by TDA to describe all articles, materials, and supplies that are used within a TxDBG funded infrastructure project.

Iron and Steel Products:

- The term “iron and steel products” is defined in 2 CFR 184.3 and means materials that consists wholly or predominantly of iron or steel, or a combination of both.
 - **Predominantly iron or steel or a combination of both** means that the cost of the iron and steel content is more than 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the mill products, castings, or forgings utilized in the manufacture of the product.

Section 70917(c) Materials:

- The term “section 70917(c) materials” is defined in 2 CFR 184.3 and means cement and cementitious materials; aggregates such as stone, sand, or gravel, or aggregate binding agents or additives.

Construction Materials:

- The term “construction materials: is defined in 2 CFR § 184.3 and means materials that consist of only one of the items listed below.
 - **Specifically listed construction materials** must meet BABA requirements for **grants awarded 9/1/2024 or after** and include:
 - Non-ferrous metals;
 - Lumber;
 - Composite building materials; and
 - Plastic and polymer-based pipe and tube.
 - **Not listed construction materials** must meet BABA requirements for **grants awarded 9/1/2025 or after** and include:
 - Plastic and polymer-based products other than composite building materials or plastic and polymer-based pipe or tube;
 - glass (including optic glass); and
 - drywall.
 - **As a note:** minor additions of articles, materials, supplies or binding agents to a construction material do not change the categorization of the construction material.

Manufactured Products:

- The term “manufactured products” is defined in 2 CFR 184.3 and means:
 - Materials that have been:
 - Processed into a specific form and shape; or
 - Combined with other materials to create a product with different properties than the individual materials.
 - If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material, then it is not a manufactured product. However, a material classified as a manufactured product may include components that are construction materials, iron or steel products, or section 70917(c) materials.

Requesting a Project-/Product-Specific Waiver

As a Note:

- As of January 2025, TDA has not seen any waiver applications approved for projects similar to TxCDBG funded projects. Submitting a waiver application does not guarantee approval.
- Any project delays due to the waiver process will not be considered for proposed Grant Agreement extensions.
- **Per HUD and OMB, project-/product-specific waivers will not be approved retroactively for materials that have already been purchased or incorporated into a project.**

Types of Waivers:

- **Nonavailability Waiver:**
 - May be requested if the types of iron, steel, manufactured products, or construction materials required for the project are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality.
- **Unreasonable Cost Waiver:**
 - May be requested when the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent.

- **Public Interest Waiver:**

- May be requested if the use of American made products would be inconsistent with the public interest. Grantees should explain how waiving the BABA requirement for the project or product will serve the public interest and demonstrate definite impacts on the community if specific materials are not utilized in an infrastructure project to support this waiver type.

Process:

- Fill out Form A400 to calculate the De Minimis limit and ensure that flexibility is fully applied to the materials used in the project that cannot be procured from domestic manufacturers.
- Determine the type of waiver to be requested.
- Complete the necessary market research to support the need for a waiver. (See next section.)
- Collect the required information to submit the waiver request to TDA. (See next section.)
- Submit to your TDA Grant Specialist a notarized letter addressed to the TxCDBG Director which includes all the required information as specified in the next section.
- TDA will review the information provided, contact Austin County if additional information is needed, and submit to HUD if deemed appropriate.
- HUD will review the waiver application and contact TDA if additional information is needed to validate the need for a waiver.
- If an application is approved by HUD, the proposed waiver will be posted in the Federal Register for a minimum 15-day public comment period and then submit the request to the Made In America Office (MIAO) at the Office of Management and Budget (OMB).
- The MIAO will review the proposed waiver and public comments for final approval and communicate a final decision to HUD which will communicate it to TDA who will then notify Austin County.

Required Information to Submit a Waiver:

- Per HUD's requirements, the following information is required to submit a waiver application. Please ensure all this information is included in your letter to the TxCDBG Director. If you have not included all the required information, TDA will reject your request.
 - Market research supporting the need for a waiver;
 - Market research may be completed by the contractor who is purchasing the materials to be incorporated into the project.
 - Sufficient market research should include one or more of the following:
 - Document the report showing results of supplier scouting services provided by the [NIST MEP](#), or similar supplier scouting service.
 - Document that the purchaser has made a good faith effort to contact a minimum of three (3) manufacturers or suppliers to determine if a BABA-compliant material is available in sufficient quantity and satisfactory quality. This documentation should include the following:
 - PDF files or screenshots of Internet searches; and
 - Email communications; and
 - Documentation of phone conversations that notes the date and time of the call, the phone number, the contact person with whom the purchaser spoke, and a summary of the information received.
 - Detailed description of the project and location;
 - List of all Federal Agencies funding the project;
 - If any Federal Agencies besides HUD are co-funding the project, please include the Federal Agency's name, Office, Program, and Contact Information.
 - Total sources and amounts of funding, including federal and non-federal shares;
 - Total estimated project costs, including federal and non-federal shares;

- A listing of the material, technical specification, and quantity;
 - HUD requires the name of the iron or steel item, manufactured product, or construction material proposed to be excepted from BABA requirements, including name, cost, countries of origin, relevant [Product Service Code \(PSC\)](#), and [North American Industry Classification System \(NAICS\) code](#).
 - **As a note:** if you have multiple products you would like HUD to review, a waiver application must be submitted for each product.
- Waiver type requested;
 - **Nonavailability Waiver:**
 - If applying for a Nonavailability Waiver, responses to the following are required:
 - A description of the due diligence performed by the applicant, including names and contact information of the manufacturers, distributors, or suppliers contacted for quotes (minimum 3), and the responses provided.
 - In the instance that the lead time to obtain a BABA compliant item is excessive, please attach documentation which indicates:
 - The sum of the project cost and product that was identified;
 - The cost differential between the BABA compliant product and the Non-BABA compliant product that increases the overall project cost to be above the threshold of 25%; and
 - Any quality or quantity issues that were interfaced in the BABA compliant process.
 - **Unreasonable Cost Waiver:**
 - If applying for an Unreasonable Cost Waiver, responses to the following are required:
 - What is the additional cost of the BABA compliant item, compared to using iron and steel, manufactured products, and construction materials of non-domestic or unknown origin?
 - Please demonstrate how the BABA compliant item increases the total project cost by more than 25 percent.
 - Attach documentation of prices for BABA compliant and non-compliant items for the cost comparison.
 - **Public Interest Waiver:**
 - If applying for a Public Interest Waiver, responses to the following are required:
 - Explain how waiving the BABA requirement for this project or product serves the public interest.
- Provide any additional information for HUD's consideration of the requested waiver;
- Identify any anticipated impacts if no waiver is issued;
- Include the following language at the end of the waiver application letter to certify that Austin County made a good faith effort to solicit bids for domestic products supported by terms included in requests for proposals, contracts, and nonproprietary communications with the prime contractor;
 - **"I/We, the undersigned, certify under penalty of perjury that the information provided above is true and correct."**

WARNING: Anyone who knowingly submits a false claim or makes a false statement is subject to criminal and/or civil penalties, including confinement for up to 5 years, fines, and civil and administrative penalties. (18 U.S.C. §§ 287, 1001, 1010, 1012, 1014; 31 U.S.C. §3729, 3802)."

**HUD-4010
Provisions**

**U.S. Department of Housing and Urban Development Federal Labor Standards
Office of Davis-Bacon and Labor Standards**

A. APPLICABILITY

The Project or Program to which the construction work covered by this Contract pertains is being assisted by the United States of America, and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

1. Minimum wages and fringe benefits

- i. All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in 29 CFR 5.5(d) and (e), the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(v) of these contract clauses; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under 29 CFR 5.5(a)(1)(iii)) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

ii. Frequently recurring classifications

- A. In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to 29 CFR 5.5(a)(1)(iii), provided that:
 - 1. The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;
 - 2. The classification is used in the area by the construction industry; and
 - 3. The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.
- B. The Administrator will establish wage rates for such classifications in accordance with 29 CFR 5.5(a)(1)(iii)(A)(3). Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

iii. Conformance

- C. The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be

classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

1. The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 2. The classification is used in the area by the construction industry; and
 3. The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- D. The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.
- E. If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- F. In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- G. The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under 29 CFR 5.5 (a)(1)(iii)(C) and (D). The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to 29 CFR 5.5 (a)(1)(iii)(C) or (D) must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

iv. Fringe benefits not expressed as an hourly rate

Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

v. Unfunded plans

If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in 29 CFR 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

- ii. **Interest** In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding

iii. Withholding requirements

The U. S. Department of Housing and Urban Development may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in 29 CFR 5.5(a) for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in 29 CFR 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work (or otherwise working in construction or development of the project under a development statute) all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in 29 CFR 5.5(a)(3)(iv), HUD may on its own initiative and after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

ii. Priority to withheld funds

The Department has priority to funds withheld or to be withheld in accordance with 29 CFR 5.5(a)(2)(i) or (b)(3)(i), or both, over claims to those funds by:

- A. A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- B. A contracting agency for its procurement costs;
- C. A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- D. A contractor's assignee(s);
- E. A contractor's successor(s); or
- F. A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

3. Records and certified payrolls

iv. Basic record requirements

- A. **Length of record retention.** All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.
- B. **Information required** Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and

weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

- C. **Additional records relating to fringe benefits.** Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(v) that the wages of any laborer or mechanic include the amount of any

costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

- D. **Additional records relating to apprenticeship** Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

ii. Certified payroll requirements

- E. **Frequency and method of submission** The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to HUD if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the certified payrolls to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to HUD. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system
- F. **Information required** The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i)(B), except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.*, the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the sponsoring government agency (or the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records).
- G. **Statement of Compliance** Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

1. That the certified payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information and basic records are being maintained under 29 CFR 5.5 (a)(3)(i), and such information and records are correct and complete;
2. That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly

from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

3. That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.
- H. **Use of Optional Form WH-347** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by 29 CFR 5.5(a)(3)(ii)(C).
- I. **Signature** The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.
- J. **Falsification** The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.
- K. **Length of certified payroll retention** The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.
- v. **Contracts, subcontracts, and related documents** The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

iv Required disclosures and access

- A. **Required record disclosures and access to workers** The contractor or subcontractor must make the records required under 29 CFR 5.5(a)(3)(i)–(iii), and any other documents that HUD or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by 29 CFR 5.1, available for inspection, copying, or transcription by authorized representatives of HUD or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.
- B. **Sanctions for non-compliance with records and worker access requirements** If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or

to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to 29 CFR 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

- C. **Required information disclosures** Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to HUD if the agency is a party to

the contract, or to the Wage and Hour Division of the Department of Labor. If the Federal agency is not such a party to the contract, the contractor, subcontractor, or both, must, upon request, provide the full Social Security number and last known address, telephone number, and email address of each covered worker to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to HUD, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity

vi. Apprentices

- A. **Rate of pay** Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- B. **Fringe benefits** Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.
- C. **Apprenticeship ratio** The allowable ratio of apprentices to journeymen on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to 29 CFR 5.5(a)(4)(i)(D). Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in 29 CFR

5.5(a)(4)(i)(A), must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

- D. **Reciprocity of ratios and wage rates** Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

ii **Equal employment opportunity** The use of apprentices and journeyworkers under this part must be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

- 9 **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- 9 **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (11), along with the applicable wage determination(s) and such other clauses or contract modifications as the U.S. Department of Housing and Urban Development may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate.
- 9 **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 9 **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- 9 **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.
- 10. Certification of eligibility.**
- i. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or 29 CFR 5.12(a).
- j. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or 29 CFR 5.12(a).
- k. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11 Anti-retaliation It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- i. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, or 29 CFR parts 1, 3, or 5;
- ii. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, or 29 CFR parts 1, 3, or 5;
- iii. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, or 29 CFR parts 1, 3, or 5; or
- iv. Informing any other person about their rights under the DBA, Related Acts, or 29 CFR parts 1, 3, or 5.

B. Contract Work Hours and Safety Standards Act (CWHSSA)

The Agency Head must cause or require the contracting officer to insert the following clauses set forth in 29 CFR 5.5(b)(1), (2), (3), (4), and (5) in full, or (for contracts covered by the Federal Acquisition Regulation) by reference, in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses must

be inserted in addition to the clauses required by 29 CFR 5.5(a) or 4.6. As used in this paragraph, the terms “laborers and mechanics” include watchpersons and guards.

2. **Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
3. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in 29 CFR 5.5(b)(1) the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in 29 CFR 5.5(b)(1), in the sum of \$31 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in 29 CFR 5.5(b)(1).
3. **Withholding for unpaid wages and liquidated damages**
 - i. **Withholding process** The U.S Department of Housing and Urban Development or the recipient of Federal assistance may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in 29 CFR 5.5(b) on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in 29 CFR 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the

same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

ii Priority to withheld funds The Department has priority to funds withheld or to be withheld in accordance with 29 CFR 5.5(a)(2)(i) or (b)(3)(i), or both, over claims to those funds by:

- A. A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- B. A contracting agency for its procurement costs;
- C. A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- D. A contractor's assignee(s);
- E. A contractor's successor(s); or
- F. A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901-3907.

4. **Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in 29 CFR 5.5(b)(1) through (5) and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in 29 CFR 5.5(b)(1) through (5). In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss,

due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. **Anti-retaliation** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

- i. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in 29 CFR part 5;
- ii. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or 29 CFR part 5;
- iii. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or 29 CFR part 5; or
- iv. Informing any other person about their rights under CWHSSA or 29 CFR part 5.

- B. **CWHSSA required records clause** In addition to the clauses contained in 29 CFR 5.5(b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other laws referenced by 29 CFR 5.1, the Agency Head must cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor must maintain regular payrolls and other basic records during the course of the work and must preserve them for a period of 3 years after all the work on the prime contract is completed for all laborers and mechanics, including guards and watchpersons, working on the contract. Such records must contain the name; last known address, telephone number, and email address; and social security number of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid; daily and weekly number of hours actually worked; deductions made and actual wages paid. Further, the Agency Head must cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph must be made available by the contractor or

subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview workers during working hours on the job.

- C. **Incorporation of contract clauses and wage determinations by reference** Although agencies are required to insert the contract clauses set forth in this section, along with appropriate wage determinations, in full into covered contracts, and contractors and subcontractors are required to insert them in any lower-tier subcontracts, the incorporation by reference of the required contract clauses and appropriate wage determinations will be given the same force and effect as if they were inserted in full text.
- D. **Incorporation by operation of law** The contract clauses set forth in this section (or their equivalent under the Federal Acquisition Regulation), along with the correct wage determinations, will be considered to be a part of every prime contract required by the applicable statutes referenced by 29 CFR 5.1 to include such clauses, and will be effective by operation of law, whether or not they are included or incorporated by reference into such contract, unless the Administrator grants a variance, tolerance, or exemption from the application of this paragraph. Where the clauses and applicable wage determinations are effective by operation of law under this paragraph, the prime contractor must be compensated for any resulting increase in wages in accordance with applicable law.

F. HEALTH AND SAFETY

The provisions of this paragraph (F) are applicable where the amount of the prime contract exceeds **\$100,000.**

1. No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his or her health and safety, as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.
2. The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to 29 CFR Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96), 40 U.S.C. § 3701 et seq.
3. The contractor shall include the provisions of this paragraph in every subcontract, so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

TITLE 29: LABOR

PART 3—CONTRACTORS AND SUBCONTRACTORS ON PUBLIC BUILDING OR PUBLIC WORK FINANCED IN WHOLE OR IN PART BY LOANS OR GRANTS FROM THE UNITED STATES

Contents

- §3.1 Purpose and scope.
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- §3.7 Applications for the approval of the Secretary of Labor.
- §3.8 Action by the Secretary of Labor upon applications.
- §3.9 Prohibited payroll deductions.
- §3.10 Methods of payment of wages.
- §3.11 Regulations part of contract.

AUTHORITY: R.S. 161, sec. 2, 48 Stat. 848; Reorg. Plan No. 14 of 1950, 64 Stat. 1267; 5 U.S.C. 301; 40 U.S.C. 3145; Secretary's Order 01-2008; and Employment Standards Order No. 2001-01.

SOURCE: 29 FR 97, Jan. 4, 1964, unless otherwise noted.

§3.1 Purpose and scope.

This part prescribes “anti-kickback” regulations under section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c), popularly known as the Copeland Act. This part applies to any contract which is subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States. The part is intended to aid in the enforcement of the minimum wage provisions of the Davis-Bacon Act and the various statutes dealing with federally assisted construction that contain similar minimum wage provisions, including those provisions which are not subject to Reorganization Plan No. 14 (e.g., the College Housing Act of 1950, the Federal Water Pollution Control Act, and the Housing Act of 1959), and in the enforcement of the overtime provisions of the Contract Work Hours Standards Act whenever they are applicable to construction work. The part details the obligation of contractors and subcontractors relative to the weekly submission of statements regarding the wages paid on work covered thereby; sets forth the circumstances and procedures governing the making of payroll deductions from the wages of those employed on such work; and delineates the methods of payment permissible on such work.

§3.2 Definitions.

As used in the regulations in this part:

(a) The terms *building* or *work* generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, powerlines, pumping stations, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals; dredging, shoring, scaffolding, drilling, blasting, excavating, clearing, and landscaping. Unless conducted in connection with and at the site of such a building or work as is described in the foregoing sentence, the manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not a *building* or *work* within the meaning of the regulations in this part.

(b) The terms *construction*, *prosecution*, *completion*, or *repair* mean all types of work done on a particular building or work at the site thereof, including, without limitation, altering, remodeling, painting and decorating, the transporting of materials and supplies to or from the building or work by the employees of the construction contractor or construction subcontractor, and the manufacturing or furnishing of

materials, articles, supplies, or equipment on the site of the building or work, by persons employed at the site by the contractor or subcontractor.

(c) The terms *public building* or *public work* include building or work for whose construction, prosecution, completion, or repair, as defined above, a Federal agency is a contracting party, regardless of whether title thereof is in a Federal agency.

(d) The term *building or work financed in whole or in part by loans or grants from the United States* includes building or work for whose construction, prosecution, completion, or repair, as defined above, payment or part payment is made directly or indirectly from funds provided by loans or grants by a Federal agency. The term includes building or work for which the Federal assistance granted is in the form of loan guarantees or insurance.

(e) Every person paid by a contractor or subcontractor in any manner for his labor in the construction, prosecution, completion, or repair of a public building or public work or building or work financed in whole or in part by loans or grants from the United States is *employed* and receiving *wages*, regardless of any contractual relationship alleged to exist between him and the real employer.

(f) The term *any affiliated person* includes a spouse, child, parent, or other close relative of the contractor or subcontractor; a partner or officer of the contractor or subcontractor; a corporation closely connected with the contractor or subcontractor as parent, subsidiary, or otherwise, and an officer or agent of such corporation.

(g) The term *Federal agency* means the United States, the District of Columbia, and all executive departments, independent establishments, administrative agencies, and instrumentalities of the United States and of the District of Columbia, including corporations, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or any of the foregoing departments, establishments, agencies, and instrumentalities.

[29 FR 97, Jan. 4, 1964, as amended at 38 FR 32575, Nov. 27, 1973]

§3.3 Weekly statement with respect to payment of wages.

(a) As used in this section, the term *employee* shall not apply to persons in classifications higher than that of laborer or mechanic and those who are the immediate supervisors of such employees.

(b) Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States, shall furnish each week a statement with respect to the wages paid each of its employees engaged on work covered by this part 3 and part 5 of this title during the preceding weekly payroll period. This statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages, and shall be on the back of Form WH 347, "Payroll (For Contractors Optional Use)" or on any form with identical wording. Copies of Form WH 347 may be obtained from the Government contracting or sponsoring agency or from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site.

(c) The requirements of this section shall not apply to any contract of \$2,000 or less.

(d) Upon a written finding by the head of a Federal agency, the Secretary of Labor may provide reasonable limitations, variations, tolerances, and exemptions from the requirements of this section subject to such conditions as the Secretary of Labor may specify.

[29 FR 97, Jan. 4, 1964, as amended at 33 FR 10186, July 17, 1968; 47 FR 23679, May 28, 1982; 73 FR 77511, Dec. 19, 2008]

§3.4 Submission of weekly statements and the preservation and inspection of weekly payroll records.

(a) Each weekly statement required under §3.3 shall be delivered by the contractor or subcontractor, within seven days after the regular payment date of the payroll period, to a representative of a Federal or State agency in charge at the site of the building or work, or, if there is no representative of a Federal or State agency at the site of the building or work, the statement shall be mailed by the contractor or subcontractor, within such time, to a Federal or State agency contracting for or financing the building or work. After such examination and check as may be made, such statement, or a copy thereof, shall be

kept available, or shall be transmitted together with a report of any violation, in accordance with applicable procedures prescribed by the United States Department of Labor.

(b) Each contractor or subcontractor shall preserve his weekly payroll records for a period of three years from date of completion of the contract. The payroll records shall set out accurately and completely the name and address of each laborer and mechanic, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Such payroll records shall be made available at all times for inspection by the contracting officer or his authorized representative, and by authorized representatives of the Department of Labor.

(Reporting and recordkeeping requirements in paragraph (b) have been approved by the Office of Management and Budget under control number 1215-0017)

[29 FR 97, Jan. 4, 1964, as amended at 47 FR 145, Jan. 5, 1982]

§3.5 Payroll deductions permissible without application to or approval of the Secretary of Labor.

Deductions made under the circumstances or in the situations described in the paragraphs of this section may be made without application to and approval of the Secretary of Labor:

(a) Any deduction made in compliance with the requirements of Federal, State, or local law, such as Federal or State withholding income taxes and Federal social security taxes.

(b) Any deduction of sums previously paid to the employee as a bona fide prepayment of wages when such prepayment is made without discount or interest. A *bona fide prepayment of wages* is considered to have been made only when cash or its equivalent has been advanced to the person employed in such manner as to give him complete freedom of disposition of the advanced funds.

(c) Any deduction of amounts required by court process to be paid to another, unless the deduction is in favor of the contractor, subcontractor, or any affiliated person, or when collusion or collaboration exists.

(d) Any deduction constituting a contribution on behalf of the person employed to funds established by the employer or representatives of employees, or both, for the purpose of providing either from principal or income, or both, medical or hospital care, pensions or annuities on retirement, death benefits, compensation for injuries, illness, accidents, sickness, or disability, or for insurance to provide any of the foregoing, or unemployment benefits, vacation pay, savings accounts, or similar payments for the benefit of employees, their families and dependents: *Provided, however,* That the following standards are met:

(1) The deduction is not otherwise prohibited by law;

(2) It is either:

(i) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of or for the continuation of employment, or

(ii) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees;

(3) No profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or subcontractor or any affiliated person in the form of commission, dividend, or otherwise; and

(4) The deductions shall serve the convenience and interest of the employee.

(e) Any deduction contributing toward the purchase of United States Defense Stamps and Bonds when voluntarily authorized by the employee.

(f) Any deduction requested by the employee to enable him to repay loans to or to purchase shares in credit unions organized and operated in accordance with Federal and State credit union statutes.

(g) Any deduction voluntarily authorized by the employee for the making of contributions to governmental or quasi-governmental agencies, such as the American Red Cross.

(h) Any deduction voluntarily authorized by the employee for the making of contributions to Community Chests, United Givers Funds, and similar charitable organizations.

(i) Any deductions to pay regular union initiation fees and membership dues, not including fines or special assessments: *Provided, however,* that a collective bargaining agreement between the contractor or subcontractor and representatives of its employees provides for such deductions and the deductions are not otherwise prohibited by law.

(j) Any deduction not more than for the “reasonable cost” of board, lodging, or other facilities meeting the requirements of section 3(m) of the Fair Labor Standards Act of 1938, as amended, and part 531 of this title. When such a deduction is made the additional records required under §516.25(a) of this title shall be kept.

(k) Any deduction for the cost of safety equipment of nominal value purchased by the employee as his own property for his personal protection in his work, such as safety shoes, safety glasses, safety gloves, and hard hats, if such equipment is not required by law to be furnished by the employer, if such deduction is not violative of the Fair Labor Standards Act or prohibited by other law, if the cost on which the deduction is based does not exceed the actual cost to the employer where the equipment is purchased from him and does not include any direct or indirect monetary return to the employer where the equipment is purchased from a third person, and if the deduction is either

(1) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance; or

(2) Provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9770, May 28, 1971]

§3.6 Payroll deductions permissible with the approval of the Secretary of Labor.

Any contractor or subcontractor may apply to the Secretary of Labor for permission to make any deduction not permitted under §3.5. The Secretary may grant permission whenever he finds that:

(a) The contractor, subcontractor, or any affiliated person does not make a profit or benefit directly or indirectly from the deduction either in the form of a commission, dividend, or otherwise;

(b) The deduction is not otherwise prohibited by law;

(c) The deduction is either (1) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance, or (2) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; and

(d) The deduction serves the convenience and interest of the employee.

§3.7 Applications for the approval of the Secretary of Labor.

Any application for the making of payroll deductions under §3.6 shall comply with the requirements prescribed in the following paragraphs of this section:

(a) The application shall be in writing and shall be addressed to the Secretary of Labor.

(b) The application need not identify the contract or contracts under which the work in question is to be performed. Permission will be given for deductions on all current and future contracts of the applicant for a period of 1 year. A renewal of permission to make such payroll deduction will be granted upon the submission of an application which makes reference to the original application, recites the date of the Secretary of Labor's approval of such deductions, states affirmatively that there is continued compliance with the standards set forth in the provisions of §3.6, and specifies any conditions which have changed in regard to the payroll deductions.

(c) The application shall state affirmatively that there is compliance with the standards set forth in the provisions of §3.6. The affirmation shall be accompanied by a full statement of the facts indicating such compliance.

(d) The application shall include a description of the proposed deduction, the purpose to be served thereby, and the classes of laborers or mechanics from whose wages the proposed deduction would be made.

(e) The application shall state the name and business of any third person to whom any funds obtained from the proposed deductions are to be transmitted and the affiliation of such person, if any, with the applicant.

[29 FR 97, Jan. 4, 1964, as amended at 36 FR 9771, May 28, 1971]

§3.8 Action by the Secretary of Labor upon applications.

The Secretary of Labor shall decide whether or not the requested deduction is permissible under provisions of §3.6; and shall notify the applicant in writing of his decision.

§3.9 Prohibited payroll deductions.

Deductions not elsewhere provided for by this part and which are not found to be permissible under §3.6 are prohibited.

§3.10 Methods of payment of wages.

The payment of wages shall be by cash, negotiable instruments payable on demand, or the additional forms of compensation for which deductions are permissible under this part. No other methods of payment shall be recognized on work subject to the Copeland Act.

§3.11 Regulations part of contract.

All contracts made with respect to the construction, prosecution, completion, or repair of any public building or public work or building or work financed in whole or in part by loans or grants from the United States covered by the regulations in this part shall expressly bind the contractor or subcontractor to comply with such of the regulations in this part as may be applicable. In this regard, see §5.5(a) of this subtitle.

MINORITY/FEMALE GOALS AND TIMETABLES

The female employment goal is effective as of April 1980 and is currently 6.9%. The percentages for minority participation in Texas are:

Texarkana Area:	
Texarkana & Bowie Co.	19.7
Non-MSA Counties of Camp, Cass, Lamar, Morris, Red River & Titus	20.2
Tyler-Longview Area:	
Longview, Gregg Co. & Harrison Co.	22.8
Tyler & Smith Co.	23.5
Non-MSA Counties of Anderson, Angelina, Cherokee, Henderson, Marion, Nacogdoches, Panola, Rusk, San Augustine, Shelby, Upshur & Wood	22.5
Beaumont-Port Arthur Area:	
Beaumont, Port Arthur, Orange, Hardin Co., Jefferson Co., & Orange Co.	22.6
Non-MSA Counties of Jasper, Houston, Newton, Sabine, & Tyler	22.6
Houston Area:	
Bryan, College Station & Brazos Co.	23.7
Galveston, Texas City & Galveston Co.	28.9
Houston, Brazoria Co., Fort Bend Co., Harris Co., Liberty Co., Montgomery Co. & Waller Co.	27.3
Non-MSA Counties of Austin, Burleson, Calhoun, Chambers, Colorado, DeWitt, Fayette, Goliad, Grimes, Jackson, Lavaca, Leon, Madison, Matagorda, Polk, Robertson, San Jacinto, Trinity, Victoria, Walker, Washington, & Wharton	27.4
Austin Area:	
Austin, Hays Co., Travis Co., & Williamson Co.	24.1
Non-MSA Counties of Bastrop, Blanco, Burnet, Caldwell, Lee & Llano	24.2
Waco, Killeen, Temple Area:	
Killeen, Temple, Bell Co. & Coryell Co.	16.4
Waco & McLennan Co.	20.7
Non-MSA Counties of Bosque, Falls, Freestone, Hamilton, Hill, Lampasas, Limestone, Milam & Mills	18.6
Dallas, Fort Worth Area:	
Dallas, Fort Worth, Collin Co., Dallas Co., Denton Co., Ellis Co., Hood Co., Johnson Co., Kaufman Co., Parker Co., Rockwall Co., Tarrant Co. & Wise Co.	18.2
Sherman, Denison & Grayson Co.	9.4
Non-MSA Counties of Cooke, Delta, Erath, Fannin, Franklin, Hopkins, Hunt, Jack, Montague, Navarro, Palo Pinto, Rains, Somervell, & Van Zandt	17.2
Wichita Falls Area:	
Wichita Falls, Clay Co. & Wichita Co.	12.4
Non-MSA Counties of Archer, Baylor, Cottle, Foard, Hardeman, Wilbarger & Young	11.0
Abilene Area:	
Abilene, Callaghan Co., Jones Co. & Taylor Co.	11.6

Non-MSA Counties of Brown, Coleman, Comanche, Eastland, Fisher, Haskell, Kent, Knox, Mitchell, Nolan, Scurry, Shackelford, Stephens, Stonewall & Throckmorton	10.9
San Angelo Area:	
San Angelo & Tom Green Co.	19.2
Non-MSA Counties of Coke, Concho, Crockett, Irion, Kimble, McCullough, Mason, Menard, Reagan, Runnels, San Saba, Schleicher, Sterling, Sutton & Terrell	20.0
San Antonio Area:	
Laredo & Webb Co.	87.3
San Antonio, Bexar Co., Comal Co. & Guadalupe Co.	47.8
Non-MSA Counties of Atascosa, Bandera, Dimmit, Edwards, Frio, Gillespie, Gonzales, Jim Hogg, Karnes, Kendall, Kerr, Kinney, La Salle, McMullen, Maverick, Medina, Real, Uvalde, Val Verde, Wilson, Zapata & Zavala	49.4
Corpus Christi Area:	
Corpus Christi, Nueces Co. & San Patricio Co.	41.7
Non-MSA Counties of Aransas, Bee, Brooks, Duval, Jim Wells, Kenedy, Kleberg, Live Oak & Refugio	44.2
Brownsville, McAllen, Harlingen Area:	
Brownsville, Harlingen, San Benito & Cameron Co.	71.0
McAllen, Pharr, Edinburg & Hidalgo Co.	72.8
Non-MSA Counties of Starr & Willacy	72.9
Odessa, Midland Area:	
Midland & Midland Co.	19.1
Odessa & Ector Co.	15.1
Non-MSA Counties of Andrews, Crane, Glasscock, Howard, Loving, Martin, Pecos, Reeves, Upton, Ward & Winkler	18.9
El Paso Area:	
El Paso & El Paso Co.	57.8
Non-MSA Counties of Brewster, Culbertson, Hudspeth, Jeff Davis & Presidio	49.0
Lubbock Area:	
Lubbock & Lubbock Co.	19.6
Non-MSA Counties of Bailey, Borden, Cochran, Crosby, Dawson, Dickens, Floyd, Gaines, Garza, Hale, Hockley, King, Lamb, Lynn, Motley, Terry & Yoakum	19.5
Amarillo Area:	
Amarillo, Potter Co. & Randall Co.	9.3
Non-MSA Counties of Armstrong, Briscoe, Carson, Castro, Childress, Collingsworth, Dallam, Deaf Smith, Donley, Gray, Hall, Hansford, Hartley, Hemphill, Hutchinson, Lipscomb, Moore, Ochiltree, Oldham, Parmer, Roberts, Sherman, Swisher, & Wheeler	11.0

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM
CONTRACTOR'S CERTIFICATION

CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS

TO (appropriate recipient)	DATE
	PROJECT NUMBER (if any) CDV23-0303
C/O	PROJECT NAME Grubbs Road Improvements

1. The undersigned, having executed a contract with _____
_____ for the construction of the above-identified project, acknowledges that:

- (a) The Labor Standards provisions are included in the aforesaid contract,
- (b) Correction of any infractions of the aforesaid conditions, including infractions by any subcontractors and any lower tier subcontractors, is Contractor's responsibility.

2. Certifies that:

- (a) Neither Contractor nor any firm, partnership or association in which it has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Part 5 (29 CFR, Part 5) or pursuant to Section 3(a) of the Davis-Bacon Act, as amended.
- (b) No part of the aforementioned contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.

3. Contractor agrees to obtain and forward to the aforementioned recipient within ten days after the execution of any subcontract, including those executed by subcontractors and any lower tier subcontractors, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements executed by the subcontractors.

4. Certifies that:

- (a) The legal name and the business address of the undersigned are:

(b) The undersigned is (choose one):

(1) A SINGLE PROPRIETORSHIP

(3) A CORPORATION ORGANIZED IN THE STATE OF

(2) A PARTNERSHIP

(4) OTHER ORGANIZATION (Describe)

(c) The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS

(d) The names and addresses of all other persons having a substantial interest in the undersigned, and the nature of the interest are:

NAME	ADDRESS	NATURE OF INTEREST

(e) The names, addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are:

NAME	ADDRESS	TRADE CLASSIFICATION

Date

(Contractor)

By

"General Decision Number: TX20250045 01/03/2025

Superseded General Decision Number: TX20240045

State: Texas

Construction Type: Heavy

Counties: Aransas, Austin, Calhoun and Goliad Counties in Texas.

HEAVY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<p>. Executive Order 14026 generally applies to the contract.</p> <p>. The contractor must pay all covered workers at least \$17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.</p>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<p>. Executive Order 13658 generally applies to the contract.</p> <p>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</p>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number 0 Publication Date 01/03/2025

SUTX2005-023 09/08/2005

Rates Fringes

Asphalt Distributor Operator.....\$ 12.57 **

Asphalt paving machine operator.....\$ 11.60 **

Asphalt Raker.....\$ 10.63 **

Asphalt Shoveler.....\$ 9.23 **

Broom or Sweeper Operator.....\$ 9.32 **

Bulldozer operator.....\$ 11.69 **
 CARPENTER.....\$ 11.70 **
 Concrete Finisher, Paving.....\$ 11.64 **
 Concrete Finisher, Structures....\$ 10.23 **
 Concrete Rubber.....\$ 9.00 **
 Crane, Clamshell, Backhoe,
 Derrick, Dragline, Shovel
 Operator.....\$ 12.00 **
 Flagger.....\$ 8.60 **
 Form Builder/Setter,
 Structures.....\$ 10.51 **
 Form Setter, Paving & Curb.....\$ 9.48 **
 Foundation Drill Operator,
 Truck Mounted.....\$ 14.58 **
 Front End Loader Operator.....\$ 10.62 **
 Laborer, common.....\$ 8.91 **
 Laborer, Utility.....\$ 9.21 **
 MECHANIC (Undefined).....\$ 12.18 **
 Motor Grader Operator Fine
 Grade.....\$ 15.15 **
 Motor Grader Operator Rough.....\$ 12.95 **
 Pavement Marking Machine
 Operator.....\$ 13.32 **
 Pipelayer.....\$ 9.71 **
 Roller Operator, Pneumatic,
 Self-Propelled.....\$ 8.90 **
 Roller Operator, Steel Wheel,
 Flat Wheel/Tamping.....\$ 9.30 **
 Roller Operator, Steel Wheel,
 Plant Mix Pavement.....\$ 10.59 **
 Scraper Operator.....\$ 9.85 **
 Servicer.....\$ 11.18 **
 Spreader Box Operator.....\$ 13.00 **
 Traveling Mixer Operator.....\$ 12.67 **
 Truck Driver Single Axle Heavy...\$ 10.87 **
 Truck Driver Single Axle,
 Light.....\$ 10.85 **
 Truck driver, lowboy-Float.....\$ 13.70 **
 Truck Driver, Tandem Axle,
 Semi-Trailer.....\$ 10.05 **
 Work Zone Barricade Servicer.....\$ 9.63 **

WELDERS - Receive rate prescribed for craft performing
 operation to which welding is incidental.

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 ** Workers in this classification may be entitled to a higher
 minimum wage under Executive Order 14026 (\$17.75) or 13658
 (\$13.30). Please see the Note at the top of the wage

determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure and Conditions
<p>Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93</p>	<p><i>During project construction, there will be some increase in ambient dust particulate from machinery and soil disturbances. These will be only temporary in nature and all efforts will be made through proper construction methods to ensure dust control and properly functioning equipment.</i></p>
<p>Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p><i>Contractor shall employ Nationwide Standard Conservation Measures set forth by USFWS.</i></p> <p><i>Provide Construction workers with a list of federal threatened and endangered species and state listed rare species. If construction workers identify or encounter threatened or endangered species or state listed rare species, construction should cease immediately and Texas Park & Wildlife should be contacted for guidance.</i></p> <p><i>Avoid activities requiring vegetation removal or disturbance during peak bird nesting season (March through August) to prevent the destruction of migratory birds, nests, or eggs. When project activities cannot occur outside the bird nesting season, conduct surveys prior to scheduled activity to determine if active nests are present within the area of impact. If evidence of migratory birds is found, a qualified biologist with USFWS should be notified.</i></p>

<p>Floodplain Management Excecutive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>The following efforts shall be made to minimize negative impacts on the natural and beneficial floodplain values for restoration and preservation.</p> <ul style="list-style-type: none"> • The project shall be implented using best management practices designed to protect improvements from flood damage. • The project shall be implemented using best management practices designed to protect natural landscapes that serve to maintain or restore natural hydrology through infiltration. • The consulting engineer shall take into consideration additional specifications to minimize damage to and/or restore the native plant species. • The project shall not lead to any significant increases in impermeable cover and shall have no negative impacts on the floodplain • Additionally, prior to construction, the project plans will meet any applicable, additional local floodplain requirements set forth by the community's Floodplain Administrator. • All state and local floodplain protection procedures will be followed.
<p>Historic Preservation National Historic Preservation Act of 1966, particularly section 106 and 110; 36 CFR Part 800</p>	<p>Indavertent Discovery Condition: <i>If historic properties are discovered or cultural materials are encountered during construction or disturbance activities or unanticipated effects on historic properties are found, work should cease in the immediate area and THC's History Programs, THC's Archeology Division, should be contacted to consult on further actions that may be necessary to protect historic properties or cultural remains. Work can continue in areas where no historic properties are present.</i></p>

Wetlands Protection

Executive Order 11990, particularly sections 2 and 5

Wetlands and riparian areas will be avoided when possible.

When avoidance is not possible, the following efforts shall be made to minimize negative impacts on the natural and beneficial values wetlands provide:

- The project shall be implemented using best management practices designed to protect natural landscapes that serve to maintain or restore natural hydrology through infiltration
- The consulting engineer will implement sediment and erosion control measures such as silt fences, sediment basins, or sediment ponds to trap sediment runoff from construction activities and prevent it from entering wetland areas. These measures assist in reducing sedimentation in wetlands and protect water quality.
- Best management practices shall be used to prevent unintentional pollution of wetlands.
 - Examples of best management practice used to prevent pollution are inspections for leaks and malfunctions of construction equipment before project work commences and taking precautions to ensure the proper collection and disposal of all on and off-site waste.
- The consulting engineer shall implement construction techniques that minimize disturbance to wetlands, such as avoiding heavy equipment operation in wetland areas and minimizing soil compaction. They will also limit the duration of construction activities in wetland areas to reduce disturbance and erosion potential.
- Preventative construction techniques will be used to reduce

in and around the wetlands assists in stabilizing the soil, prevents erosions, and promotes infiltration of water.

- The consulting engineer will acquire all necessary permits, including any from USACE relating to wetlands, prior to construction.

Temporary Signage Requirements

Temporary Signage

All construction projects utilizing TxCDBG funding must have temporary signage erected in a prominent location at the construction project site. For projects with a Citywide benefit but multiple project locations, (E.g., water meter replacement throughout the city, manhole replacement throughout the city, etc.) the temporary signage may be located in a central location such as City Hall or the County Courthouse provided that the temporary signage is accompanied by a description or map of the specific locations. For additional guidance for similarly scattered project locations, contact TDA staff. A photo of this signage must be submitted to TDA prior to the release of construction funds.

Requirements of temporary signage include

- placement in a prominent visible public area that is not blocked or obscured;
- constructed of durable materials;
- minimum size of 11" x 17" with lettering no smaller than one-half inch;

Required text (or similar)*:

This project is funded by the Texas Department of Agriculture with funds allocated by the U.S. Department of Housing and Urban Development through the Community Development Block Grant Program.

***NOTE:** The text requirement above is satisfied by using the text in this manual. Alternate wording may be approved by TDA upon request.

Temporary signage may be reused for future TxCDBG projects as appropriate.

GrantWorks can provide a temporary sign meeting the minimum requirements at the pre-construction conference, upon request.

Projects Requiring Permanent Signage

Permanent signage identifying the location as a TxCDBG-funded project is required for any TxCDBG-funded public buildings, park areas, or other structures open to the public. Some examples of projects requiring permanent signage include community centers, parks/recreation facilities, fire stations, and significant improvements to existing facilities. Project signage is an eligible construction cost.

Requirements of permanent signage include:

- placement in a prominent visible public area that is not blocked or obscured;
- constructed of permanent materials;
- minimum size of 12" x 18" with lettering no smaller than one-half inch;
- Required text:

This project is funded by the Texas Department of Agriculture with funds allocated by the U.S. Department of Housing and Urban Development through the Community Development Block Grant Program.

Construction Contract

DISCLAIMER: This sample draft document was developed for TX-CDBG grant projects and may not include all applicable provisions. This document has important legal consequences. Please consult with your legal counsel with respect to its completion or modification to ensure that it is in compliance with any appropriate local, state and federal laws applicable.

THIS AGREEMENT made this the [Date] day of [Month] , [Year] , by and between [Name of Firm] an [Description of Firm] hereinafter called the “*Contractor*”, and AUSTIN COUNTY hereinafter called the “*County*.”

WITNESSETH, that the Contractor and the County for the considerations stated herein mutually agree as follows:

ARTICLE 1. Statement of Work. The Contractor shall furnish all supervision, technical personnel, labor, materials, machinery, tools, equipment and services, including utility and transportation services, and perform and complete all work required for the construction of the Improvements embraced in the Project; namely, approximately one hundred thirty linear feet (130 LF) of culvert crossing with headwalls including rock riprap and approximately fifteen thousand five hundred linear feet (15,500 LF) of street drainage ditch improvements for the CDV23-0303 Texas Community Development Block Grant (TxCDBG) project, all in strict accordance with the contract documents including all addenda thereto, numbered , dated and , all as prepared by Doucet and Associates, Inc. acting and in these contract documents preparation, referred to as the “*Engineer*”.

ARTICLE 2. The Contract Price. The County will pay the Contractor for the performance of the Contract in current funds, for the total quantities of work performed at the *unit prices* stipulated in the Bid for the several respective items of work completed subject to additions and deductions as provided in Exhibit , hereof.

ARTICLE 3. The Contract. The executed contract documents shall consist of the following components:

- | | |
|----------------------------|--|
| (a) This Agreement | (f) General Conditions, Part I |
| (b) Addenda | (g) Special Conditions |
| (c) Invitation to Bids | (h) Technical Specifications |
| (d) Instruction to Bidders | (i) Drawings (as listed in the Schedule of Drawings) |
| (e) Signed Copy of Bid | (j) [Add any applicable document] |

ARTICLE 4. Performance. Work, in accordance with the Contract dated , , shall commence on or before , , and Contractor shall complete the WORK within two hundred seventy-five (275) consecutive calendar days thereafter. The date of completion of all WORK is therefore , .

This Agreement, together with other documents enumerated in this ARTICLE 3, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, forms the Contract between the parties hereto. In the event that any provision in any component part of this

Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in this ARTICLE 3 shall govern, except as otherwise specifically stated.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in _____ original copies on the day and year first above written.

(The Contractor)

By _____
Title _____

(County)

By _____

Title _____

Corporate Certifications

I, _____, certify that I am the _____ of the corporation named as Contractor herein; that _____ who signed this Agreement on behalf of the Contractor, was then _____ of said corporation; that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers.

Corporate Seal

(Corporate Secretary)

General Conditions for Construction Contracts

1) Contract and Contract Documents

- a) The project to be constructed pursuant to this contract will be financed with assistance from the Texas Department of Agriculture - Office of Rural Affairs through a Community Development Block Grant (TxCDBG) and is subject to all applicable Federal and State laws and regulations.
- b) The Plans, Specifications and Addenda shall form part of this contract and the provisions thereof shall be binding upon the parties as if they were herein fully set forth.

2) Definitions

Whenever used in any of the Contract Documents, the following meanings shall be given to the terms here in defined:

- a) The term "Contract" means the Contract executed between Austin County, hereinafter called the "County" and (Name of Construction Co.), hereinafter called "Contractor", of which these GENERAL CONDITIONS, form a part.
- b) The term "Project Area" means the area within the specified Contract limits of the Improvements contemplated to be constructed in whole or in part under this contract.
- c) The term "Engineer" means Doucet and Associates, Inc., Engineer in charge, serving the County with architectural or engineering services, his successor, or any other person or persons, employed by the County for the purpose of directing or having in charge the work embraced in this Contract.
- d) The term "Contract Documents" means and shall include the following: Executed Contract, Addenda (if any), Invitation for Bids, Instructions to Bidders, Signed Copy of Bid, General Conditions, Special Conditions, Technical Specifications, and Drawings (as listed in the Schedule of Drawings).

3. Supervision by Contractor

- a) Except where the Contractor is an individual and personally supervises the work, the Contractor shall provide a competent superintendent, satisfactory to the Engineer, on the work at all times during working hours with full authority to act as Contractor's agent. The Contractor shall also provide adequate staff for the proper coordination and expediting of his work.
- b) The Contractor shall be responsible for all work executed under the Contract. Contractor shall verify all figures and elevations before proceeding with the work and will be held responsible for any error resulting from his failure to do so.

4. Subcontracts

- a) The Contractor shall not execute an agreement with any subcontractor or permit any subcontractor to perform any work included in this contract until Contractor has verified the subcontractor is eligible to participate in federally funded contracts.
- b) No proposed subcontractor shall be disapproved by the County except for cause.

- c) The Contractor shall be as fully responsible to the County for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them.
- d) Nothing contained in the Contract shall create any contractual relation between any subcontractor and the County.

5. Fitting and Coordination of Work

The Contractor shall be responsible for the proper fitting of all work and for the coordination of the operations of all trades, subcontractors, or material suppliers engaged upon this Contract.

6. Payments to Contractor

a) Partial Payments

- i) The Contractor shall prepare the requisition for partial payment as of the last day of the month and submit it, with the required number of copies, to the Engineer for approval. The amount of the payment due the Contractor shall be determined by adding to the total value of work completed to date, the value of materials properly stored on the site and deduct five percent (5%) to be retained until final payment, and (2) the amount of all previous payments. The total value of work completed to date shall be based on the estimated quantities of work completed and on the unit prices contained in the agreement. The value of materials properly stored on the site shall be based upon the estimated quantities of such materials and the invoice prices. Copies of all invoices shall be available for inspection of the Engineer.
- ii) Monthly or partial payments made by the County to the Contractor are advanced for the purpose of assisting the contractor to expedite the work of construction. The Contractor shall be responsible for the care and protection of all materials and work upon which payments have been made until final acceptance of such work and materials by the County. Such payments shall not constitute a waiver of the right of the County to require the fulfillment of all terms of the Contract and the delivery of all improvements embraced in this Contract complete and satisfactory to the County in all details.

b) Final Payment

- i) After final inspection and the acceptance by the County of all work under the Contract, the Contractor shall prepare the requisition for final payment which shall be based upon the careful inspection of each item of work at the applicable unit prices stipulated in the Contract. The total amount of the final payment due the Contractor under this Contract shall be the amount computed as described above less all previous payments.
- ii) Before paying the final estimate, County shall require the Contractor to furnish releases or receipts from all subcontractors having performed any work and all persons having supplied materials, equipment (installed on the Project) and services to the Contractor. The County may make payment in part or in full to the Contractor without requiring the furnishing of such releases or receipts and any payments made shall in no way impair the obligations of any surety or sureties furnished under this Contract.
- iii) Any amount due the County under Liquidated Damages shall be deducted from the final payment due the contractor.

c) Payments Subject to Submission of Certificates

- i) Each payment to the Contractor by the County shall be made subject to submission by the Contractor of all written certifications required of it and its subcontractors.

d) Withholding Payments

- i) The County may withhold any payment due the Contractor as deemed necessary to protect the County, and if so elects, may also withhold any amounts due from the Contractor to any subcontractors or material dealers, for work performed or material furnished by them. The foregoing provisions shall be construed solely for the benefit of the County and will not require the County to determine or adjust any claims or disputes between the Contractor and its subcontractors or material dealers, or to withhold any moneys for their protection unless the County elects to do so. The failure or refusal of the County to withhold any moneys from the Contractor shall in no way impair the obligations of any surety or sureties under any bond or bonds furnished under this Contract.

7. Changes in the Work

- a) The County may make changes in the scope of work required to be performed by the Contractor under the Contract without relieving or releasing the Contractor from any obligations under the Contract or any guarantee given pursuant to the Contract provisions, and without affecting the validity of the guaranty bonds, and without relieving or releasing the surety or sureties of said bonds. All such work shall be executed under the terms of the original Contract unless it is expressly provided otherwise. Additionally, all such change orders must be approved by TxCDBG prior to execution of same.
- b) Except for the purpose of affording protection against any emergency endangering health, life, limb or property, the Contractor shall make no change in the materials used or in the specified manner of constructing and/or installing the improvements or supply additional labor, services or materials beyond that actually required for the execution of the Contract, unless in pursuance of a written order from the County authorizing the Contractor to proceed with the change. No claim for an adjustment of the Contract Price will be valid unless so ordered.
- c) If applicable unit prices are contained in the Contract, the County may order the Contractor to proceed with desired unit prices specified in the Contract; provided that in case of a unit price contract the net value of all changes does not increase the original total amount of the agreement by more than twenty-five percent (25%) or decrease the original the total amount by eighteen percent (18%).
- d) Each change order shall include in its final form:
 - i) A detailed description of the change in the work.
 - ii) The Contractor's proposal (if any) or a confirmed copy thereof.
 - iii) A definite statement as to the resulting change in the contract price and/or time.
 - iv) The statement that all work involved in the change shall be performed in accordance with contract requirements except as modified by the change order.
 - v) The procedures as outlined in this Section for a unit price contract also apply in any lump sum contract.

8. Claims for Extra Cost

- a) If the Contractor claims that any instructions by Drawings or otherwise involve extra cost or extension of time, he shall, within ten days after the receipt of such instructions, and in any event before proceeding to execute the work, submit his protest thereto in writing to the County, stating clearly and in detail the basis of his objections. No such claim will be considered unless so made.
- b) Claims for additional compensation for extra work, due to alleged errors in ground elevations, contour lines, or bench marks, will not be recognized unless accompanied by certified survey data, made prior to the time the original ground was disturbed, clearly showing that errors exist which resulted, or would result, in handling more material, or performing more work, than would be reasonably estimated from the Drawings and maps issued.
- c) Any discrepancies which may be discovered between actual conditions and those represented by the Drawings and maps shall be reported at once to the County and work shall not proceed except at the Contractor's risk, until written instructions have been received from the County.
- d) If, on the basis of the available evidence, the County determines that an adjustment of the Contract Price and/or time is justifiable, a change order shall be executed.

9. Termination, Delays, and Liquidated Damages

- a) Right of the County to Terminate Contract for Convenience
 - i) County may at any time and for any reason terminate Contractor's services and work at County's convenience upon providing written notice to the Contractor specifying the extent of termination and the effective date. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.
 - ii) Upon such termination, Firm shall be entitled to payment only as follows: (1) the actual cost of the work completed in conformity with this Agreement plus (2) such other costs actually incurred by Firm as are permitted by the prime contract and approved by County. There shall be deducted from such sums as provided in this subparagraph the amount of any payments made to Firm prior to the date of the termination of this Agreement. Firm shall not be entitled to any claim or claim of lien against County for any additional compensation or damages in the event of such termination and payment.
- b) Right of the County to Terminate Contract for Cause
 - i) In the event that any of the provisions of this contract are violated by the Contractor, or by any subcontractors, the County may serve written notice upon the Contractor and the Surety of its intention to terminate the contract. The notices shall contain the reasons for such intention to terminate the contract, and unless such violation or delay shall cease and satisfactory arrangement of correction be made within ten days, the contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of any such termination, the County shall immediately serve notice thereof upon the Surety and the Contractor. The Surety shall have the right to take over and perform the contract. Provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the County may take over the work and complete the project by bid/contract or by force account at the expense of the Contractor and his Surety shall be liable to the County for any excess cost incurred. In such event the County may take

possession of and utilize in completing the work, such materials, appliances, and plant as may be on the site of the work and necessary therefore.

c) Liquidated Damages for Delays.

- i) If the work is not completed within the time stipulated in the applicable bid for Lump Sum or Unit Price Contract provided, the Contractor shall pay to the County as fixed, agreed, and liquidated damages (it being impossible to determine the actual damages occasioned by the delay) the amount of eight hundred (\$800) for each calendar day of delay, until the work is completed. The Contractor and Contractor's sureties shall be liable to the County for the amount thereof.

d) Excusable Delays.

- i) The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:
- ii) Any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, national defense, or any other national emergency;
- iii) Any acts of the County;
- iv) Causes not reasonably foreseeable by the parties to this Contract at the time of execution which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, terrorism, war, acts of another Contractor in the performance of some other contract with the County, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions.
- v) Provided, however, that the Contractor promptly notifies the County within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the County shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this contract, the delay is properly excusable, the County shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

10. Assignment or Novation

The Contractor shall not assign nor transfer, whether by assignment or novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the County. No assignment or novation of this Contract shall be valid unless the assignment or novation expressly provides that the assignment of any of the Contractor's rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract in favor of all persons, Contractors, or corporations rendering such labor or services or supplying such materials, tools, or equipment.

11. Technical Specifications and Drawings

Anything mentioned in the Technical Specifications and not shown on the Drawings or vice versa shall be of like effect as if shown on or mentioned in both. In case of difference between Drawings and Technical Specifications, the Technical Specifications shall govern. In case of any discrepancy in Drawings, or Technical Specifications, the matter shall be immediately submitted to the County for

review. Contractor shall be liable for any issues or expenses in the event the discrepancy is not submitted to the County.

12. Shop Drawings

- a) All required shop drawings, machinery details, layout drawings, etc. shall be submitted to the Engineer in electronic copies for approval sufficiently in advance of requirements to afford ample time for checking, including time for correcting, resubmitting and rechecking if necessary. The Contractor may proceed, only at Contractor's own risk, with manufacture or installation of any equipment or work covered by said shop drawings, etc. until they are approved and no claim, by the Contractor, for extension of the contract time shall be granted by reason of his failure in this respect.
- b) Any drawings submitted without the Contractor's stamp of approval will not be considered and will be returned to him for proper resubmission. If any drawings show variations from the requirements of the Contract because of standard shop practice or other reason, the Contractor shall make specific mention of such variation in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment of contract price and/or time, otherwise the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though the drawings have been approved.
- c) If a shop drawing is in accordance with the contract or involves only minor adjustment in the interest of the County not involving a change in contract price or time, the engineer may approve the drawing. The approval shall not relieve the Contractor from responsibility to adhere to the contract or for any error in the drawing.

13. Requests for Supplementary Information

It shall be the responsibility of the Contractor to make timely requests of the County for any additional information which should be furnished by the County under the terms of this Contract, and which is required in the planning and execution of the work. Such requests may be submitted from time to time as the need approaches, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay. Each request shall be in writing, and list the various items and the latest date by which each will be required by the Contractor. The first list shall be submitted within two weeks after Contract award and shall be as complete as possible at that time. The Contractor shall, if requested, furnish promptly any assistance and information the Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for any delay in his work or to others arising from his failure to comply fully with the provision of this section.

14. Materials and Workmanship

- a) Unless otherwise specifically provided for in the technical specifications, all workmanship, equipment, materials and articles incorporated in the work shall be new and the best grade of the respective kinds for the purpose. Where equipment, materials, articles or workmanship are referred to in the technical specifications as "equal to" any particular standard, the Engineer shall decide the question of equality.
- b) The Contractor shall furnish to the County for approval the manufacturer's detailed specifications for all machinery, mechanical and other special equipment, which he contemplates installing together with full information as to type, performance characteristics, and all other pertinent information as required, and shall likewise submit for approval full information concerning all other materials or articles which he proposes to incorporate.

- c) Machinery, mechanical and other equipment, materials or articles installed or used without such prior approval shall be at the risk of subsequent rejection.
- d) Materials specified by reference to the number or symbol of a specific standard, shall comply with requirements in the latest revision thereof and any amendment or supplement thereto in effect on the date of the Invitation for Bids, except as limited to type, class or grade, or modified in the technical specifications shall have full force and effect as though printed therein.
- e) The County may require the Contractor to dismiss from the work such employee or employees as the County or the Engineer may deem unqualified.
- f) Domestic Preferences - As appropriate and to the extent consistent with law and to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.
 - i) For purposes of this section:
 - (1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
 - (2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.
 - (3) [Iron and steel products, Manufactured Products, and Construction Materials] used in this project comply with the Build America, Buy America Act (BABA) requirements mandated by Title IX of the Infrastructure Investment and Jobs Act ("IIJA"), Pub. L. 177-58.

15. Samples, Certificates and Tests

- a) The Contractor shall submit all material or equipment samples, certificates, affidavits, etc., as called for in the contract documents or required by the Engineer, promptly after award of the contract and acceptance of the Contractor's bond. No such material or equipment shall be manufactured or delivered to the site, except at the Contractor's own risk, until the required samples or certificates have been approved in writing by the Engineer. Any delay in the work caused by late or improper submission of samples or certificates for approval shall not be considered just cause for an extension of the contract time.
- b) Each sample submitted by the Contractor shall carry a label giving the name of the Contractor, the project for which it is intended, and the name of the producer. The accompanying certificate or letter from the Contractor shall state that the sample complies with contract requirements, shall give the name and brand of the product, its place of origin, the name and address of the producer and all specifications or other detailed information which will assist the Engineer in making a prompt decision regarding the acceptability of the sample. It shall also include the statement that all materials or equipment furnished for use in the project will comply with the samples and/or certified statements.
- c) Approval of any materials shall be general only and shall not constitute a waiver of the County's right to demand full compliance with Contract requirements. After actual deliveries, the Engineer will have such check tests made as he deems necessary in each instance and may reject materials

and equipment and accessories for cause, even though such materials and articles have been given general approval. If materials, equipment or accessories which fail to meet check tests have been incorporated in the work, the Engineer will have the right to cause their removal and replacement by proper materials or to demand and secure such reparation by the Contractor as is equitable.

- d) Except as otherwise specifically stated in the Contract, the costs of sampling and testing will be divided as follows:
- 1) The Contractor shall furnish without extra cost, including packing and delivery charges, all samples required for testing purposes, except those samples taken on the project by the Engineer;
 - 2) The Contractor shall assume all costs of re-testing materials which fail to meet contract requirements;
 - 3) The Contractor shall assume all costs of testing materials offered in substitution for those found deficient;
 - 4) The County will pay all other expenses.

16. Permits and Codes

- a) The Contractor shall give all notices required by and comply with all applicable federal and state laws, ordinances, and codes of the Local Government. All construction work and/or utility installations shall comply with all applicable ordinances, and codes including all written waivers. Before installing any work, the Contractor shall examine the drawings and technical specifications for compliance with applicable ordinances and codes and shall immediately report any discrepancy to the County. Where the requirements of the drawings and technical specifications fail to comply with such applicable ordinances or codes, the County will adjust the Contract by Change Order to conform to such ordinances or codes (unless waivers in writing covering the difference have been granted by the governing body or department) and make appropriate adjustment in the Contract Price or stipulated unit prices.
- b) Should the Contractor fail to observe the foregoing provisions and proceed with the construction and/or install any utility at variance with any applicable ordinance or code, including any written waivers (notwithstanding the fact that such installation is in compliance with the drawings and technical specifications), the Contractor shall remove such work without cost to the County.
- c) The Contractor shall at his own expense, secure and pay for all permits for street pavement, sidewalks, shed, removal of abandoned water taps, sealing of house connection drains, pavement cuts, buildings, electrical, plumbing, water, gas and sewer permits required by the local regulatory body or any of its agencies.
- d) The Contractor shall comply with applicable local laws and ordinances governing the disposal of surplus excavation, materials, debris and rubbish on or off the Project Area and commit no trespass on any public or private property in any operation due to or connected with the Improvements contained in this Contract.
- e) The Contractor will be required to make arrangements for and pay the water, electrical power, or any other utilities required during construction.
- f) During construction of this project, the Contractor shall use every means possible to control the amount of dust created by construction. Prior to the close of a day's work, the Contractor, if directed by the County, shall moisten the surrounding area to prevent a dusty condition.

17. Care of Work

- a) The Contractor shall be responsible for all damages to person or property that occur as a result of its fault or negligence in connection with the prosecution of the work and shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance.
- b) In an emergency affecting the safety of life, limb or property, including adjoining property, the Contractor, without special instructions or authorization from the County is authorized to act to prevent such threatened loss or injury. Contractor shall follow all instructions of County.
- c) The Contractor shall avoid damage as a result of his operations to existing sidewalks, streets, curbs, pavements, utilities (except those which are to be replaced or removed), adjoining property, etc., and shall be responsible for completely repairing any damage thereto caused by the operations.
- d) The Contractor shall shore up, brace, underpin, secure, and protect as maybe necessary, all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be in any way affected by the excavations or other operations connected with the construction of the improvements included in this Contract. The Contractor shall be responsible for the giving of any and all required notices to any adjoining or adjacent property owner or other party before the commencement of any work. The Contractor shall indemnify and save harmless the County from any damages on account of settlements or the loss of lateral support of adjoining property and from all loss or expense and all damages for which the County may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.

18. Accident Prevention

- a) No laborer or mechanic employed in the performance of this Contract shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health or safety as determined under construction safety and health standards promulgated by the Department of Labor.
- b) The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work.
- c) The Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under the Contract. The Contractor shall promptly furnish the County with reports concerning these matters.
- d) The Contractor shall indemnify and hold harmless the County from any claims for damages resulting from property damage, personal injury and/or death suffered or alleged to have been suffered by any person as a result of any work conducted under this contract.
- e) The Contractor shall provide trench safety for all excavations more than five feet deep prior to excavation. All OSHA Standards for trench safety must be adhered to by the Contractor.
- f) The contractor shall at all time conduct work in such a manner as to ensure the least possible inconvenience to vehicular and pedestrian traffic. At the close of the work each day, all streets where possible in the opinion of the County, shall be opened to the public in order that persons living in the area may have access to their homes or businesses by the use of the streets.

Barricades, warning signs, and necessary lighting shall be provided to the satisfaction of the County at the expense of the Contractor.

19. Sanitary Facilities

The Contractor shall furnish, install and maintain ample sanitary facilities for laborers. As the needs arise, a sufficient number of enclosed temporary toilets shall be conveniently placed as required. Drinking water shall be provided from an approved source, so piped or transported as to keep it safe and fresh and served from single service containers or satisfactory types of sanitary drinking stands or fountains. All such facilities and services shall be furnished in strict accordance with existing and governing health regulations.

20. Use of Premises

- a) The Contractor shall confine equipment, storage of materials, and construction operations to the contract limits as shown on the drawings and as prescribed by ordinances or permits, or as may be desired by the County, and shall not unreasonably encumber the site or public rights of way with materials and construction equipment.
- b) The Contractor shall comply with all reasonable instructions of the County and all existing federal, state and local regulations regarding signs, advertising, traffic, fires, explosives, danger signals, and barricades.

21. Removal of Debris, Cleaning, Etc.

The Contractor shall, periodically or as directed during the progress of the work, remove and legally dispose of all surplus excavated material and debris, and keep the Project Area and public rights of way reasonably clear. Upon completion of the work, he shall remove all temporary construction facilities, debris and unused materials provided for work, and put the whole site of the work and public rights of way in a neat and clean condition.

22. Inspection

- a) All materials and workmanship shall be subject to inspection, examination, or test by the County and Engineer at any and all times during manufacture or construction and at any and all places where such manufacture or construction occurs. The County shall have the right to reject defective material and workmanship or require its correction. Unacceptable workmanship shall be satisfactorily corrected. Rejected material shall be promptly segregated and removed from the Project Area and replaced with material of specified quality without charge. If the Contractor fails to proceed at once with the correction of rejected workmanship or defective material, the County may by contract or otherwise have the defects remedied or rejected materials removed from the Project Area and charge the cost of the same against any Monies which may be due the Contractor, without prejudice to any other rights or remedies of the County.
- b) The Contractor shall furnish promptly all materials reasonably necessary for any tests which may be required. All tests by the County will be performed in such manner as not to delay the work unnecessarily and will be made in accordance with the provisions of the technical specifications.
- c) The Contractor shall notify the County sufficiently in advance of back filling or concealing any facilities to permit proper inspection. If any facilities are concealed without approval or consent of the County, the Contractor shall uncover for inspection and recover such facilities at Contractor's expense, when so requested by the County.

- d) Should it be considered necessary or advisable by the County at any time before final acceptance of the entire work to make an examination of work already completed, the Contractor shall on request promptly furnish all necessary facilities, labor, and material. If such work is found to be defective in any important or essential respect, due to fault of the Contractor or subcontractors, the Contractor shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, the actual cost of labor and material necessarily involved in the examination and replacement, shall be reimbursable and if completion of the work of the entire Contract has been delayed, a suitable extension of time will be approved.
- e) Inspection of materials and appurtenances to be incorporated in the improvements included in this Contract may be made at the place of production, manufacture or shipment, whenever the quantity justifies it, and such inspection and acceptance, unless otherwise stated in the technical specifications, shall be final, except as regards to: (1) latent defects, (2) departures from specific requirements of the Contract, (3) damage or loss in transit, or (4) fraud or such gross mistakes as amount to fraud. Subject to the requirements contained in the preceding sentence, the inspection of materials as a whole or in part will be made at the Project Site.
- f) Neither inspection, testing, approval nor acceptance of the work in whole or in part, by the County or its agents shall relieve the Contractor or its sureties of full responsibility for materials furnished or work performed not in strict accordance with the Contract.

23. Review by County

The County and its authorized representatives and agents shall have access to and be permitted to observe and review all work, materials, equipment, payrolls, personnel records, employment conditions, material invoices, and other relevant data and records pertaining to this Contract, provided, however that all instructions and approval with respect to the work will be given to the Contractor only by the County through its authorized representatives or agents.

24. Final Inspection

When the Improvements included in this Contract are substantially completed, the Contractor shall notify the County in writing that the work will be ready for final inspection on a definite date which shall be stated in the notice. The County will make the arrangements necessary to have final inspection commenced on the date stated in the notice, or as soon thereafter as is practicable.

25. Deduction for Uncorrected Work

If the County deems it not expedient to require the Contractor to correct work not done in accordance with the Contract Documents, an equitable deduction from the Contract Price will be made by agreement between the Contractor and the County and subject to settlement, in case of dispute, as herein provided.

26. Insurance

The Contractor shall not commence work under this contract until all required insurance under this paragraph has been secured and approved by the County.

- a) Worker's Compensation Insurance: The Contractor shall procure and shall maintain during the life of this contract Worker's Compensation Insurance as required by the State of Texas for all of his employees to be engaged in work at the site of the project under this contract and, in case of

any such work sublet, the Contractor shall require the subcontractor similarly to provide Worker's Compensation Insurance for all of the employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Worker's Compensation Insurance.

- b) Contractor's Public Liability and Property Damage Insurance and Vehicle Liability Insurance. The Contractor shall procure and shall maintain during the life of this contract Contractor's Public Liability Insurance, Contractor's Property Damage Insurance and Vehicle Liability Insurance in the following amounts: (_____).
- c) Proof of Insurance: The Contractor shall furnish the County with certificates showing the type, amount, class of operations covered, effective dates and date of expiration of policies. Such certificates shall also contain substantially the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after ten (10) days written notice has been received by the County."

27. Warranty of Title

No material, supplies, or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease-purchase or other agreement by which an interest is retained by the seller or supplier. The Contractor shall warrant good title to all materials, supplies, and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same, together with all improvements and appurtenances constructed or placed by Contractor, to the County free from any claims, liens, or charges. Neither the Contractor nor any person, firm, or corporation furnishing any material or labor for any work covered by this Contract shall have any right to a lien upon any improvement or appurtenance. Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any law permitting such persons to look to funds due the Contractor. The provisions of this paragraph shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

28. Warranty of Workmanship and Materials

Neither the final certificate of payment nor any provision in the Contract nor partial or entire use of the improvements included in this Contract by the County or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of final acceptance of the work.

29. Job Offices

- a) The Contractor and its subcontractors may maintain such office and storage facilities on the site as are necessary for the proper conduct of the work. These shall be located so as to cause no interference to any work to be performed on the site. The County shall be consulted with regard to locations.
- b) Upon completion of the improvements, or as directed by the County, the Contractor shall remove all such temporary structures and facilities from the site and leave the site of the work in the condition required by the Contract.

30. Partial Use of Site Improvements

The County may give notice to the Contractor and place in use those sections of the improvements which have been completed, inspected and can be accepted as complying with the technical specifications and if in its opinion, each such section is reasonably safe, fit, and convenient for the use and accommodation for which it was intended, provided:

- a) The use of such sections of the Improvements shall in no way impede the completion of the remainder of the work by the Contractor.
- b) The Contractor shall not be responsible for any damages or maintenance costs due directly to the use of such sections.

31. Local Program Liaison

For purposes of this Agreement, the Administrative Assistant – Road and Bridge Department or equivalent authorized person will serve as the Local Program Liaison and primary point of contact for the Contractor. All required progress reports and communication regarding the project shall be directed to this liaison and other local personnel as appropriate.

32. Access to Information

- a) The U.S. Department of Housing and Urban Development (HUD), Inspectors General, the Comptroller General of the United States, the Texas Department of Agriculture (TDA), and the County, or any of their authorized representatives, shall have access to any documents, papers, or other records of the Contractor which are pertinent to the TxCDBG award, in order to make audits, examinations, excerpts, and transcripts, and to closeout the County's TxCDBG contract with TDA.
- b) Contractor shall include the substance of this clause in all subcontracts it awards.

33. Records Retention

- a) The Contractor shall retain all required records for three years after the County makes its final payment and all pending matters are closed.
- b) Contractor shall include the substance of this clause in all subcontracts it awards.

34. Resolution of Program Non-Compliance and Disallowed Costs

In the event of any dispute, claim, question, or disagreement arising from or relating to this Contract, or the breach thereof, including determination of responsibility for any costs disallowed as a result of non-compliance with federal, state or TxCDBG program requirements, the parties hereto shall use their best efforts to settle the dispute, claim, question or disagreement. To this effect, the parties shall consult and negotiate with each other in good faith within 30 days of receipt of a written notice of the dispute or invitation to negotiate, and attempt to reach a just and equitable solution satisfactory to both parties. If the matter is not resolved by negotiation within 30 days of receipt of written notice or invitation to negotiate, the parties agree first to try in good faith to settle the matter by mediation administered by the American Arbitration Association under its Commercial Mediation Procedures before resorting to arbitration, litigation, or some other dispute resolution procedure. The parties may enter into a written amendment to this Contract and choose a mediator that is not affiliated with the American Arbitration Association. The parties shall bear the costs of such mediation equally. *[This section may also provide for the qualifications of the mediator(s), the locale of meetings, time limits, or any other item of concern to the parties.]* If the matter is not resolved through such mediation within 60 days of the initiation of that procedure, either party may proceed to file suit.

35. Compliance with Davis-Bacon Act

All laborers and mechanics employed upon the work covered by this Contract shall be paid unconditionally and not less often than once each week, and without subsequent deduction or rebate on any account (except such payroll deductions as are made mandatory by law and such other payroll deductions as are permitted by the applicable regulations issued by the Secretary of Labor, United States Department of Labor, pursuant to the Anti-Kickback Act hereinafter identified), the full amount due at time of payment computed at wage rates not less than those contained in the wage determination decision of said Secretary of Labor (a copy of which is attached as Attachment ___ and herein incorporated by reference), regardless of any contractual relationship which may be alleged to exist between the Contractor or any subcontractor and such laborers and mechanics. All laborers and mechanics employed upon such work shall be paid in cash, except that payment may be by check if the employer provides or secures satisfactory facilities approved by the County for the cashing of the same without cost or expense to the employee. For the purpose of this clause, contributions made or costs reasonably anticipated under Section 1 (b) (2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section 5.5 (a) (1) (iv) of Title 29, Code of Federal Regulations. Also for the purpose of this clause, regular contributions made or costs incurred for more than a weekly period under plans, funds, or programs, but covering the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

The Contractor and its subcontractors shall not, by any means, induce any person employed in the construction, completion, or repair of public work, give up any part of the compensation to which he or she is otherwise entitled. The County must report all suspected or reported violations to TDA.

36. Conflicts of interest.

- a) Governing Body. No member of the governing body of the County and no other officer, employee, or agent of the County, who exercises any functions or responsibilities in connection with administration, construction, engineering, or implementation of TxCDBG award between TDA and the City / County, shall have any personal financial interest, direct or indirect, in the Contractor or this Contract; and the Firm shall take appropriate steps to assure compliance.
- b) Other Local Public Officials. No other public official, who exercises any functions or responsibilities in connection with the planning and carrying out of administration, construction, engineering or implementation of the TxCDBG award between TDA and the County, shall have any personal financial interest, direct or indirect, in the Contractor or this Contract; and the Contractor shall take appropriate steps to assure compliance.
- c) The Contractor and Employees. The Contractor warrants and represents that it has no conflict of interest associated with the TxCDBG award between TDA and the County or this Contract. The Contractor further warrants and represents that it shall not acquire an interest, direct or indirect, in any geographic area that may benefit from the TxCDBG award between TDA and the County or in any business, entity, organization or person that may benefit from the award. The Contractor further agrees that it will not employ an individual with a conflict of interest as described herein.

37. Debarment and Suspension (Executive Orders 12549 and 12689)

The Contractor certifies, by entering into this Contract, that neither it nor its principals are presently debarred, suspended, or otherwise excluded from or ineligible for participation in federally-assisted programs under Executive Orders 12549 (1986) and 12689 (1989). The term "principal" for purposes of this Contract is defined as an officer, director, owner, partner, key employee, or other person with

primary management or supervisory responsibilities, or a person who has a critical influence on or substantive control over the operations of the Contractor. The Contractor understands that it must not make any award or permit any award (or contract) at any tier to any party which is debarred or suspended or is otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549, "Debarment and Suspension."

38. Anti-Lobbying

Contractor shall file the required certification: The undersigned certifies, to the best of his or her knowledge and belief, that:

- (a) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (c) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

39. Overtime Requirements

No Contractor or subcontractor contracting for any part of the Contract work which may require or involve the employment of laborers or mechanics, including watchmen and guards, shall require or permit any laborer or mechanic in any workweek in which he is employed on such work to work in excess of 40 hours in such work week unless such laborer or mechanic receives compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of 40 hours in such work week, as the case may be.

40. Clean Air Act and the Federal Water Pollution Control Act

The Contractor or subcontractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

41. Equal Opportunity Clause [applicable to contracts and subcontracts over \$10,000].

During the performance of this contract, the Contractor agrees as follows:

- a) The Contractor will not act against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity,

or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- c) The Contractor will not discourage or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.
- d) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- e) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, "Equal Employment Opportunity," and of the rules, regulations, and relevant orders of the Secretary of Labor.
- f) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- g) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- h) The Contractor will include the portion of the sentence immediately preceding paragraph (a) and the provisions of paragraphs (a) through (h) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

42. Section 109 of the Housing and Community Development Act of 1974.

The Contractor shall comply with the provisions of Section 109 of the Housing and Community Development Act of 1974. No person in the United States shall on the ground of race, color, national

origin, religion, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

43. Section 504 Rehabilitation Act of 1973, as amended.

The Contractor agrees that no otherwise qualified individual with disabilities shall, solely by reason of his/her disability, be denied the benefits of, or be subjected to discrimination, including discrimination in employment, under any program or activity receiving federal financial assistance.

44. Age Discrimination Act of 1975.

- a) The Contractor shall comply with the Age Discrimination Act of 1975 which provides that no person in the United States shall on the basis of age be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.

45. Economic Opportunities for Section 3 Residents and Section 3 Business Concerns.

- a) The work to be performed under this Contract is subject to the requirements of section 3 of the Housing and
- b) Urban Development (HUD) Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- c) The parties to this Contract agree to comply with HUD's regulations in 24 CFR part 75, which implement section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 75 regulations.
- d) The Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 75. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 75.
- e) The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 75 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 75. Minimum expectations of effort to direct employment opportunities to such workers are identified in the TxCDBG Project Implementation Manual.
- f) Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.

46. Contract Documents and Drawings

The County will furnish the Contractor without charge three (3) copies of the Contract Documents, including Technical Specifications and Drawings. Additional copies requested by the Contractor will be furnished at cost.

47. Contract Period

The work to be performed under this contract shall commence within the time stipulated by the County in the Notice to Proceed and shall be fully completed within two hundred seventy-five (275) calendar days thereafter.

48. Liquidated Damages

Since the actual damages for any delay in completion of the work under this contract are impossible to determine, the Contractor and his Sureties shall be liable for and shall pay to the County the sum eight hundred Dollars (\$ 800) as fixed, agreed and liquidated damages for each calendar day of delay from the above stipulated time for completion.

49. Verification No Boycott Israel

As required by Chapter 2270, Government Code, CONTRACTOR hereby verifies that it does not boycott Israel and will not boycott Israel through the term of this Agreement. For purposes of this verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes.

50. Foreign Terrorist Organizations

Pursuant to Chapter 2252, Texas Government Code, CONTRACTOR represents and certifies that, at the time of execution of this Agreement neither CONTRACTOR, nor any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same (i) engages in business with Iran, Sudan, or any foreign terrorist organization as described in Chapters 806 or 807 of the Texas Government Code, or Subchapter F of Chapter 2252 of the Texas Government Code, or (ii) is a company listed by the Texas Comptroller of Public Accounts under Sections 806.051, 807.051, or 2252.153 of the Texas Government Code. The term "foreign terrorist organization" in this paragraph has the meaning assigned to such term in Section 2252.151 of the Texas Government Code.

51. Firearm Entities and Trade Association Discrimination

CONTRACTOR verifies that: (1) it does not, and will not for the duration of the contract, have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association or (2) the verification required by Section 2274.002 of the Texas Government Code does not apply to the contract. If circumstances relevant to this provision change during the course of the contract, Respondent shall promptly notify Agency.

52. Gender Neutral - Gender References

When necessary, unless the context clearly requires otherwise, any gender-specific or gender-neutral term in this Contract (for example, he, she, it, etc.) is to be read as referring to any other gender or to no gender.

53. Payment Processing

Payment under this contract must be processed through the Texas Department of Agriculture. Receipt of payment from Austin County may take at least 45 to 60 days from the time of pay estimate approval by the project engineer

Section 504 Certification

POLICY OF NONDISCRIMINATION ON THE BASIS OF DISABILITY

The _____ does not discriminate on the basis of disability status in the admission or access to, or treatment or employment in, its federally assisted programs or activities.

(Name) _____

(Address) _____

City State Zip

Telephone Number () _____ - _____ Voice
() _____ - _____ TDD

_____ has been designated to coordinate compliance with the nondiscrimination requirements contained in the Department of Housing and Urban Development's (HUD) regulations implementing Section 504 (24 CFR Part 8. dated June 2, 1988).

Payment Bond

KNOW ALL MEN BY THESE PRESENTS that:

(Name of Contractor or Company)

(Address)

a _____, hereinafter called Principal,
(Corporation / Partnership)

and _____
(Name of Surety Company)

(Address)

hereinafter called Surety, are held and firmly bound unto

(Name of Recipient)

(Recipient's Address)

hereinafter called OWNER, in the penal sum of \$ _____

Dollars, \$ _____ in lawful money of the United States, for this payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONFIDENTIALITY OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the ____ day of _____, a copy of which is hereto attached and made a part hereof for the construction of:

(Project Name)

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUB-CONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUB-CONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counter-parts, each on of
(Number)
which shall be deemed an original, this the _____ day of _____.

ATTEST:

(Principal)

(Principal Secretary) By _____ (s)

(SEAL)

(Witness as to Principal)

(Address)

(Address)

ATTEST:

(Surety)

(Witness as to Surety)

By _____
(Attorney in Fact)

(Address)

(Address)

Performance Bond

KNOW ALL MEN BY THESE PRESENTS that:

(Name of Contractor or Company)

(Address)

a _____ hereinafter called Principal, and

(Name of Surety Company)

(Address)

hereinafter called Surety, are held and firmly bound unto

Austin County

(Name of Grant Recipient)

(Grant Recipient's Address)

hereinafter called OWNER, in the penal sum of \$ _____

Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, successors, and assigns, jointly and severally, firmly in these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER dated the _____ day of _____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties in all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____
counterparts, each one of which shall be deemed an original, this the _____ day of _
_____.

ATTEST:

(Principal)

(Principal Secretary) By _____(s)

(SEAL)

(Witness as to Principal)

(Address)

(Address)

ATTEST:

(Surety)

(Witness as to Surety)

By _____
(Attorney in Fact)

(Address)

(Address)

Certificate of Liability Insurance

[INSERT Copy of Contractor's Liability Insurance]

CERTIFICATE OF INTERESTED PARTIES FORM 1295 AND INSTRUCTIONS

DISCLOSURE OF INTERESTED PARTY FORM:

NEW OBLIGATION OF THE COUNTY TO RECEIVE INFORMATION FROM WINNING BIDDER

Effective January 1, 2016, pursuant to Texas Government Code, Section 2252.908 (the “Interested Party Disclosure Act”), the County may not award a contract to a bidder unless the bidder submits a Certificate of Interested Parties Form 1295 (the “Disclosure Form”) to the County as prescribed by the Texas Ethics Commission (“TEC”). In the event that the bidder’s bid for the Grubbs Road Improvement Project is the best bid received, the County or its consultant, will promptly notify the bidder. That notification will serve as the conditional verbal acceptance of the bid. Upon this acceptance, the winning bidder must promptly file the materials described below.

PROCESS FOR COMPLETING THE DISCLOSURE FORM¹

The Disclosure Form can be found at <https://www.ethics.state.tx.us/forms/1295.pdf>, and reference should be made to the following information in order to complete it:

- (a) item 2 – Name of County (“ , Texas”)
- (b) item 3 – the identification number (“TxCDBG ”), and
- (c) item 3 – description of the goods or services assigned to this contract by the City (“Construction Services for ”)

You must:

- 1) complete the Disclosure Form electronically at the TEC’s “electronic portal”, and
- 2) print, sign and deliver a copy (scanned and emailed is fine) of the Disclosure Form and Certification of Filing that is generated by the TEC’s “electronic portal.”

The following link will take you to the electronic portal for filing:

<https://www.ethics.state.tx.us/TECCertInt/pages/login/certLogin.jsf>

¹ A completed Form 1295 is not required for:

- a sponsored research contract of an institution of higher education;
- an interagency contract of a state agency or an institution of higher education;
- a contract related to health and human services if:
 - the value of the contract cannot be determined at the time the contract is executed; and
 - any qualified vendor is eligible for the contract;
- a contract with a publicly traded business entity, including a wholly owned subsidiary of the business entity;
- a contract with an electric utility, as that term is defined by Section 31.002, Utilities Code; or
- a contract with a gas utility, as that term is defined by Section 121.001, Utilities Code.

Also, a detailed instruction video may be found here:

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

Neither the **County** nor its consultants have the ability to verify the information included in a Disclosure Form, and neither have an obligation nor undertake responsibility for advising any business entity with respect to the proper completion of the Disclosure Form.

CERTIFICATE OF INTERESTED PARTIES**FORM 1295**

Complete Nos. 1 - 4 and 6 if there are interested parties.
 Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. ☐

6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
 (street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
 (month) (year)

 Signature of authorized agent of contracting business entity
 (Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

Attorney's Review Certification

I, the undersigned, _____, the duly authorized and acting legal representative of the _____, do hereby certify as follows:

I have examined the attached contract(s) and surety bonds and am of the opinion that each of the agreements may be duly executed by the proper parties, acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties; and that the agreements shall constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions and provisions thereof.

Attorney's signature: _____ Date: _____

Print Attorney's Name: _____

Texas State Bar Number: _____

REQUIRED CONTRACT PROVISIONS

For Construction Contracts and Subcontracts

Sourced from TDA 2024 Manual- Appendix B Required Contract Provisions

<https://texasagriculture.gov/Grants-Services/Rural-Economic-Development/-TxCDBG-Rural-Community-Development-Block-Grant/Implementation-Manual>

For all contracts

- Debarment and Suspension
- Access to Records
- Records Retention – 3 Years
- Conflict of Interest Questionnaire – Form CIQ (Texas Ethics Commission)
- Termination for Cause (>\$10K)
- Admin., Contractual, Legal Remedies (>\$50K)
- (If applicable) Option Contract - Procurement Before Application
- Byrd Anti-Lobbying (≥\$100K)

Additional provisions for administration & engineering contracts associated with construction contracts

- Equal Opportunity Clause Contracts > \$10K
- Section 3 Contract Provisions (administration services on all TxCDBG Agreements)

Additional provisions for construction contracts

- HUD 4010
- Davis Bacon and Copeland Anti-Kickback (>\$2K)
- Equal Opportunity Clause (>\$10K)
- Contract Work Hours and Safety Standards Act
- Section 3 Contract Provisions (All TxCDBG Agreements)
- Clean Air and Water Act (>\$150K)
- Domestic Preferences for Procurements

REQUIRED CONTRACT PROVISIONS

Italics – Explanatory; not contract language

All Contracts

THRESHOLD	PROVISION	CITATION
None	(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide Excluded Parties List System in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1986 Comp., p. 189) and 12689 (3 CFR Part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.	2 CFR 200 APPENDIX II (H)
None	The U.S. Department of Housing and Urban Development (HUD), Inspectors General, the Comptroller General of the United States, and the Texas Department of Agriculture (TDA), and the County, or any of their authorized representatives, shall have access to any documents, papers, or other records of the Contractor which are pertinent to the TxCDBG award, in order to make audits, examinations, excerpts, and transcripts and to closeout the City’s/County’s TxCDBG contract with TDA.	2 CFR 200.337
None	Grantees or subgrantees must retain all required records for three years after grantees or subgrantees make final payments and all other pending matters are closed.	2 CFR 200.334
None	Sec. 176.003. CONFLICTS DISCLOSURE STATEMENT REQUIRED. (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if: (1) the vendor enters into a contract with the local governmental entity or the local governmental entity is considering entering into a contract with the vendor; and (2) the vendor: (A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that: (i) a contract between the local governmental entity and vendor has been executed; or (ii) the local governmental entity is considering entering into a contract with the vendor; (B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:	Chapter 176 of the Local Government Code

	<p>(i) a contract between the local governmental entity and vendor has been executed; or</p> <p>(ii) the local governmental entity is considering entering into a contract with the vendor; or</p> <p>(C) has a family relationship with the local government officer.</p> <p>(a-1) A local government officer is not required to file a conflicts disclosure statement in relation to a gift accepted by the officer or a family member of the officer if the gift is:</p> <p>(1) a political contribution as defined by Title 15, Election Code; or</p> <p>(2) food accepted as a guest.</p> <p>(a-2) A local government officer is not required to file a conflicts disclosure statement under Subsection (a) if the local governmental entity or vendor described by that subsection is an administrative agency created under Section 791.013, Government Code.</p> <p>(b) A local government officer shall file the conflicts disclosure statement with the records administrator of the local governmental entity not later than 5 p.m. on the seventh business day after the date on which the officer becomes aware of the facts that require the filing of the statement under Subsection (a).</p>	
>\$10,000	<p><i>(B) All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.</i></p> <p><i>Use the following language for contracts > \$ 10,000:</i></p> <p><u>Termination for Cause</u></p> <p>If the Contractor fails to fulfill in a timely and proper manner its obligations under this Agreement, or if the Contractor violates any of the covenants, conditions, agreements, or stipulations of this Agreement, the County shall have the right to terminate this Agreement by giving written notice to the Contractor of such termination and specifying the effective date thereof, which shall be at least five days before the effective date of such termination. In the event of termination for cause, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared by the Contractor pursuant to this Agreement shall, at the option of the County, be turned over to the City / County and become the property of the City / County. In the event of termination for cause, the Contractor shall be entitled to receive reasonable compensation for any necessary services actually and satisfactorily performed prior to the date of termination.</p> <p>Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by</p>	<p>2 CFR 200 APPENDIX II(B)</p>

	<p>the County by virtue of any breach of contract by the Contractor, and the County may set-off the damages it incurred as a result of the Contractor's breach of contract from any amounts it might otherwise owe the Contractor.</p> <p><u>Termination for Convenience of the County</u></p> <p>County may at any time and for any reason terminate Contractor's services and work at County's convenience upon providing written notice to the Contractor specifying the extent of termination and the effective date. Upon receipt of such notice, Contractor shall, unless the notice directs otherwise, immediately discontinue the work and placing of orders for materials, facilities and supplies in connection with the performance of this Agreement.</p> <p>[Parties should include the manner by which such termination will be effected and the basis for settlement or any other terms and conditions concerning payment upon such termination.]</p>	
>\$50,000	<p><i>(A) Contracts for more than \$50,000 must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.</i></p> <p><i>Use the following language for contracts > \$50,000:</i></p> <p><u>Resolution of Program Non-compliance and Disallowed Costs</u></p> <p>In the event of any dispute, claim, question, or disagreement arising from or relating to this Agreement, or the breach thereof, including determination of responsibility for any costs disallowed as a result of non-compliance with federal, state or TxCDBG program requirements, the parties hereto shall use their best efforts to settle the dispute, claim, question or disagreement. To this effect, the parties shall consult and negotiate with each other in good faith within 30 days of receipt of a written notice of the dispute or invitation to negotiate, and attempt to reach a just and equitable solution satisfactory to both parties. If the matter is not resolved by negotiation within 30 days of receipt of written notice or invitation to negotiate, the parties agree first to try in good faith to settle the matter by mediation administered by the American Arbitration Association under its Commercial Mediation Procedures before resorting to arbitration, litigation, or some other dispute resolution procedure. The parties may enter into a written amendment to this Agreement and choose a mediator that is not affiliated with the American Arbitration Association. The parties shall bear the costs of such mediation equally. <i>[This section may also provide for the qualifications of the mediator(s), the locale of meetings, time limits, or any other item of concern to the parties.]</i> If the matter is not resolved through such mediation within 60</p>	<p>2 CFR 200 APPENDIX II (A)</p>

	days of the initiation of that procedure, either party may proceed to file suit.	
≥\$100,000	(I) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award of \$100,000 or more must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.	2 CFR 200 APPENDIX II (I) and 24 CFR §570.303
Optional Contract Language for Procurement before Grant Funds Awarded	Payment of the fees [described in ____ section] shall be contingent on CDBG funding. In the event that grant funds are not awarded to the City / County by TDA through the TxCDBG program, this agreement shall be terminated by the City / County.	

Additional provisions for administration & engineering contracts associated with construction contracts

Italics – Explanatory; not contract language

THRESHOLD	PROVISION	CITATION
>\$10,000	<p><i>2 CFR 200 Appendix II (C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “<u>federally assisted construction contract</u>” in 41 CFR Part 60–1.3 must include the equal opportunity clause provided under 41 CFR 60–1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”</i></p> <p><i>Therefore, include the following EO clause (not in italics) in construction contracts including construction associated administration and engineering contracts > \$10,000:</i></p> <p>§60-1.4(b) Equal opportunity clause.</p> <p><i>(b) Federally assisted construction contracts. Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition</i></p>	<p>41 CFR §60-1.4(b) And 2 CFR 200 APPENDIX II (C)</p>

	<p><i>of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause:</i></p> <p><i>The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:</i></p> <p>During the performance of this contract, the contractor agrees as follows:</p> <p>(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.</p> <p>(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.</p> <p>(3) The Contractor will not discourage or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.</p>	
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	<p>(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.</p> <p>(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.</p> <p>(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.</p> <p>(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.</p> <p>(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.</p> <p>The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant</p>	
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	<p>so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.</p> <p>The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.</p> <p>The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.</p> <p>(c) Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.</p> <p>(d) Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.</p> <p>(e) Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.</p> <p>(f) Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.</p>	
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	[43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997; 79 FR 72993, Dec. 9, 2014; 80 FR 54934, September 11, 2015]	
None	<p><i>§75.27 Section 3 contract provision</i> <i>Recipients must include language applying Section 3 requirements in any subrecipient agreement or contract for a Section 3 project.:</i></p> <p>Economic Opportunities for Section 3 Residents and Section 3 Business Concerns.</p> <p>(a) The work to be performed under this Contract is subject to the requirements of section 3 of the Housing and Urban Development (HUD) Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.</p> <p>(b) The parties to this Contract agree to comply with HUD's regulations in 24 CFR part 75, which implement section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 75 regulations.</p> <p>(c) The Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 75. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 75.</p> <p>(d) The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 75 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 75. Minimum expectations of effort to direct employment opportunities to such workers are identified in the TxCDBG Project Implementation Manual.</p> <p>(e) Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.</p>	24 CFR §75.27

Construction Contracts*Italics – Explanatory; not contract language*

THRESHOLD	PROVISION	CITATION
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<p>>\$2,000 for Davis Bacon and Copeland “Anti-Kickback” Act;</p> <p>>\$100,000 for Contract Work Hours and Safety Standards Act</p>	<p><i>HUD 4010 Federal labor standards provisions include:</i></p> <ol style="list-style-type: none"> 1. <i>Davis Bacon Act (40 U.S.C. 3141 et seq.) as supplemented by DOL regulations (29 CFR part 5);</i> 2. <i>Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3); and</i> 3. <i>Contract Work Hours and Safety Standards Act (40 U.S.C. 3701 et seq.)</i> <p><i>See HUD 4010 contract language in Appendix F. Inclusion of this language into the construction contract satisfies contract requirements of the separate acts noted.</i></p>	
<p>>\$2,000</p> <p>(Satisfied with inclusion of HUD 4010)</p>	<p><i>Compliance with the Davis-Bacon Act (40 U.S.C. 3141 et seq.) as supplemented by Department of Labor regulations (29 CFR part 5) and with the Copeland “Anti-Kickback” Act (18 U.S.C. 874; 40 U.S.C. 3145) as supplemented in Department of Labor regulations (29 CFR part 3):</i></p> <p>(D) Davis-Bacon Act, as amended (40 U.S.C. 3141-3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) as supplemented by Department of Labor regulations (29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.</p>	<p>2 CFR 200 APPENDIX II (D)</p>

<p>>\$10,000</p>	<p><i>2 CFR 200 Appendix II (C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60–1.3 must include the equal opportunity clause provided under 41 CFR 60–1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”</i></p> <p><i>Therefore, include the following EO clause (not in italics) in construction contracts including construction associated administration and engineering contracts > \$10,000:</i></p> <p>§60-1.4(b) Equal opportunity clause.</p> <p><i>(b) Federally assisted construction contracts. Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause:</i></p> <p><i>The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:</i></p> <p><i>During the performance of this contract, the contractor agrees as follows:</i></p> <p><i>(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in</i></p>	<p>41 CFR §60-1.4(b) And 2 CFR 200 APPENDIX II (C)</p>
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	<p>conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.</p> <p>(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.</p> <p>(3) The Contractor will not discourage or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.</p> <p>(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.</p> <p>(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.</p> <p>(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.</p> <p>(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of</p>	
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	<p>September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.</p> <p>(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.</p> <p>The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.</p> <p>The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.</p> <p>The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which</p>	
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	<p>the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.</p> <p>(c) Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.</p> <p>(d) Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.</p> <p>(e) Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.</p> <p>(f) Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings.</p> <p>[43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997; 79 FR 72993, Dec. 9, 2014; 80 FR 54934, September 11, 2015]</p>	
<p>>\$100,000</p> <p>(Satisfied with inclusion of HUD 4010)</p>	<p>(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701–3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.</p>	<p>2 CFR 200 APPENDIX II (E)</p>
None	Economic Opportunities for Section 3 Residents and Section 3 Business Concerns.	24 CFR §75.27

	<p>(a) The work to be performed under this Contract is subject to the requirements of section 3 of the Housing and Urban Development (HUD) Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.</p> <p>(b) The parties to this Contract agree to comply with HUD's regulations in 24 CFR part 75, which implement section 3. As evidenced by their execution of this Contract, the parties to this Contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 75 regulations.</p> <p>(c) The Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 75, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 75. The Contractor will not subcontract with any subcontractor where the Contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 75.</p> <p>(d) The Contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the Contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 75 require employment opportunities to be directed, were not filled to circumvent the Contractor's obligations under 24 CFR part 75. Minimum expectations of effort to direct employment opportunities to such workers are identified in the TxCDBG Project Implementation Manual.</p> <p>(e) Noncompliance with HUD's regulations in 24 CFR part 75 may result in sanctions, termination of this Contract for default, and debarment or suspension from future HUD assisted contracts.</p>	
>\$150,000	<p>(G) Clean Air Act (42 U.S.C. 7401–7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).</p>	2 CFR 200 APPENDIX II (G)
No Threshold	§ 200.322 Domestic preferences for procurements.	2 CFR §200.322

	<p>(a) As appropriate and to the extent consistent with law and to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.</p> <p>(b) For purposes of this section:</p> <p>(1) "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.</p> <p>(2) "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.</p> <p>c) Federal agencies providing Federal financial assistance for infrastructure projects must implement the Buy America preferences set forth in 2 CFR part 184.</p>	
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TEMPLATE PROJECT FORMS

Keep in mind the following forms are for your reference and may not represent the current form version required by TDA. Please contact your GrantWorks project manager for the most current version of forms and reporting processes required by TDA.

In this section:

- Change Order Form
- Certificate of Construction Completion
- Contractor's Final Payment Affidavit



Construction Contract Change Order

A505

Grant Recipient: _____ Select: ☒ City ☐ County
 Contract No.: _____ Change Order No.: _____ Region: _____

Contractor:

(Name and Address)

Engineer:

(Name and Address)

Select Change Order Type(s): ☒ Change to Existing Line Items ☒ New Items Requested ☒ Change in Contract Duration

Grant recipient is requesting Texas Department of Agriculture review to determine eligibility of change order expenses.

Changes to Existing Line Items (Items from original bid or added in previous change order ONLY)

Bid Item #	Item Description	Original Qty.	Proposed Qty.	UOM	Unit Price	Δ Qty.	Change in Contract Price	+
								-
			0		\$0.00	0	\$0.00	-
			0		\$0.00	0	\$0.00	-
			0		\$0.00	0	\$0.00	-
			0		\$0.00	0	\$0.00	-
			0		\$0.00	0	\$0.00	-
Contract Change Sub-Total:							\$0.00	

New Items Requested (Items WITHOUT a unit price in the original bid)

Provide explanation below (attach separate documentation as appropriate). The Grant Recipient must demonstrate competitive pricing for new items.

Bid Item #	Item Description	Original Qty.	Proposed Qty.	UOM	Unit Price	Δ Qty.	Change in Contract Price	+
								-
		0	0		\$0.00	0	\$0.00	-
		0	0		\$0.00	0	\$0.00	-
		0	0		\$0.00	0	\$0.00	-
		0	0		\$0.00	0	\$0.00	-
		0	0		\$0.00	0	\$0.00	-
Contract New Item Sub-Total:							\$0.00	

Change in Contract Duration

Provide explanation below (attach separate documentation as necessary).

Original Contract End Date:

Net change of previous Change Orders (days):

Increase/Decrease of this Change Order (days):

Change Order Contract End Date

Grant Recipient: _____ Contract No.: _____ Change Order No.: _____

Justification for Change			
	Increase	Decrease	No Change
1. Effect of this change on scope of work:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Effect on operation and maintenance costs:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Yes	No	Not Applicable
3. Will this Change Order change the number of beneficiaries or TxDBG contract Performance Statement Exhibit A?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Has this change created new circumstances or environmental conditions which may affect the project's impact, such as concealed or unexpected conditions discovered during actual construction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the TCEQ clearance still valid?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are other TxDBG contractual special condition clearances still valid?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If new items are included that were not included in the competitive bid, have the prices been determined to be reasonable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Grant Recipient: _____ Contract No.: _____ Change Order No.: _____

Director Signature (optional)	Date

Grant Recipient: _____ Contract No.: _____ Change Order No.: _____

Certificate of Construction Completion (COCC)

FOR REFERENCE ONLY. COCC is generated from the TDA GO system by the locality or GrantWorks project manager at construction completion.

Grant Recipient: Austin County

TxCDBG Contract No: _____

This is to certify that all construction work has been completed and a final inspection of the project described below was conducted on the ____ day of _____, _____. Contract was entered into on the ____ day of _____, ____ between the County of _____ and _____ for the construction of _____.

This is to further certify that:

1. The work has been completed in accordance with the plans and specifications and all amendments, change orders and supplemental agreements thereto.
2. The sum of \$ _____, has been deducted from the final payment to the Contractor in accordance with any contract liquidated damages requirements, separate from any liquidated damages resulting from Davis-Bacon compliance.
3. All programmatic requirements have been met, all claims and disputes have been settled, all warranties have been received, and all liens have been released.
4. The Contractor has presented on behalf of itself and its sureties, satisfactory evidence that he or she will repair, replace and rectify any faulty workmanship and/or materials discovered in the work within a period of 12 months from this date, as provided in the Contract.
5. All bills for materials, apparatus, fixtures, machinery, labor, and equipment used in connection with the construction of this project have been fully paid.

6.	Amount of Original Contract	\$ _____
	Cumulative Change Orders	\$ _____
	Final Amount of Contract	\$ _____
	Less Previous Payments	\$ _____
	Less Deductions (from #2 above)	\$ _____
	FINAL PAYMENT (Balance)	\$ _____

7. The Final Payment above is now due and payable.

Certified by the following Engineer, Contractor, and Chief Elected Official/Designee:

Engineer Signature

Chief Elected Official Signature

Contractor Signature

Title

Title

Title

Firm

City / County

Contractor

Contractor's Final Payment Affidavit

Locality:			TX CDBG No:	
Contractor:			Date:	

BEFORE ME, THE UNDERSIGNED AUTHORITY, on this day personally appeared _____, who being duly sworn, on oath, says that he is a duly authorized representative of _____; Contractor, and that all terms of the Contract for the completion of certain public works described as _____; County of _____, Texas have been satisfactorily completed and that ALL sums of money for payrolls, bills for material and equipment, and other indebtedness connected with the Work for the Owner or its property might in any way be responsible to the best of my knowledge and belief, have been paid or will be paid or otherwise satisfied within thirty days after receipt of final payment from the Owner, or within the period of time required by Article 601f, Vernon's Civil Statutes. Payments not made in full at the time of this affidavit are listed below.

FINAL PAYMENTS pending as of this date hereof are:		None Pending		As Listed Below
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Individual or Co. Name	Mailing Address	Amount Owed

Signature
Title

Affidavit must be signed by an individual owner or partner in partnership, or by a person authorized by by-laws or Board of Directors to sign for a corporation. If Contractor is a joint venture or partnership of individuals, either may sign, but if a joint venture in which a corporation is a party, separate affidavits must be executed by each corporation and by each individual owner or partnership. In the event subcontractors, laborers, or material suppliers have not been paid in full, the Contractor shall list here on the amount owed and the name and address of each subcontractor, laborer, or material supplier to whom such payment is owed.

--

Sworn and Subscribed before me this, the _____ day of _____, 20__.

(SEAL)

Notary Public in and for _____ County, Texas

Item 100

Preparing Right of Way



1. DESCRIPTION

Prepare the right of way and designated easements for construction operations by removing and disposing of all obstructions when removal of such obstructions is not specifically shown on the plans to be paid by other Items.

2. MATERIALS

Furnish materials in conformance with the plans and Specifications.

3. CONSTRUCTION

Protect designated features on the right of way and prune trees and shrubs as directed. Do not park equipment, service equipment, store materials, or disturb the root area under the branches of trees designated for preservation. Follow all local and state regulations when burning. Pile and burn brush at approved locations as directed. Spread mulched material at approved locations as directed. Handle hazardous materials in accordance with Article 6.10., "Hazardous Materials."

Clear areas shown on the plans of all obstructions, except those landscape features that are to be preserved. Such obstructions include remains of houses and other structures, foundations, floor slabs, concrete, brick, lumber, plaster, septic tank drain fields, basements, abandoned utility pipes or conduits, equipment, fences, retaining walls, and other items as specified on the plans. Remove vegetation and other landscape features not designated for preservation, curb and gutter, driveways, paved parking areas, miscellaneous stone, sidewalks, drainage structures, manholes, inlets, abandoned railroad tracks, scrap iron, and debris, whether above or below ground. Remove culverts, storm sewers, manholes, and inlets in proper sequence to maintain traffic and drainage. Removal of live utility facilities is not included in this Item.

Perform tree and brush removal and trimming in accordance with Article 752.4, "Work Methods."

Notify the Engineer in writing when items not shown on the plans and not reasonably detectable (buried with no obvious indication of presence) are encountered and required to be removed. These items will be handled in accordance with Article 4.5., "Differing Site Conditions."

Remove obstructions not designated for preservation to 2 ft. below natural ground in areas receiving embankment. Remove obstructions to 2 ft. below the excavation level in areas to be excavated. Remove obstructions to 1 ft. below natural ground in all other areas. Remove trees and stumps to 6 in. below ground level. Plug the remaining ends of abandoned underground structures over 3 in. in diameter using concrete to form a tight closure. Backfill, compact, and restore areas where obstructions have been removed unless otherwise directed. Use approved material for backfilling. Dispose of wells in accordance with Item 103, "Disposal of Wells."

Accept ownership, unless otherwise directed, and dispose of removed materials and debris at locations off the right of way in conformance with local, state, and federal requirements.

- 3.1. **Tree Protection.** Install tree protection for trees designated for preservation. Unless otherwise shown on the plans, install tree protection along the drip line of the trees using 4-ft. tall chain link fencing with line posts no more than 10 ft. apart. Install tree protection before beginning work.

4. MEASUREMENT

This Item will be measured by the acre; by the 100-ft. station, regardless of the width of the right of way; or by each tree removed.

Tree removal diameter will be measured in accordance with Article 752.5, "Measurement."

Tree protection will be measured by the acre of trees protected, by the foot of fencing, or by each tree protected.

5. PAYMENT

For "acre" and "station" measurement, the work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Preparing Right of Way." For "each" measurement, the work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Preparing Right of Way (Tree)" of the diameter specified. This price is full compensation for removal and trimming of designated trees and shrubs; removal and disposal of structures and obstructions; backfilling of holes; furnishing and placing concrete for plugs; and equipment, labor, tools, and incidentals.

Total payment of this Item will not exceed 10% of the original Contract amount until final acceptance. The remainder will be paid on the estimate after final acceptance in accordance with Article 5.12., "Final Acceptance."

5.1. **Tree Protection.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows.

5.1.1. **Subsidiary Work.** The following will not be measured or paid for directly, but will be subsidiary to "Tree Protection":

- protection for Contractor project-specific locations inside and outside the right of way;
- repair to areas to be protected that are damaged by Contractor operations;
- removal and re-installation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the protection; and
- minor adjustments, including, but not limited to, plumbing posts and re-attaching protection.

5.1.2. **Installation.** Installation will be paid for as "Tree Protection (Install)." This price is full compensation for furnishing and operating equipment and for labor, materials, tools, and incidentals.

5.1.3. **Removal.** Removal will be paid for as "Tree Protection (Remove)." This price is full compensation for furnishing and operating equipment and for proper disposal, labor, materials, tools, and incidentals.

Item 104

Removing Concrete



1. DESCRIPTION

Break, remove, and salvage or dispose of existing hydraulic cement concrete.

2. CONSTRUCTION

Remove existing hydraulic cement concrete from locations shown on the plans. Avoid damaging concrete that will remain in place. Saw-cut and remove the existing concrete to neat lines. Replace any concrete damaged by the Contractor at no expense to the Department. Accept ownership and properly dispose of broken concrete in conformance with federal, state, and local regulations unless otherwise shown on the plans.

3. MEASUREMENT

Removing concrete pavement, floors, porches, patios, riprap, medians, foundations, sidewalks, driveways, and other appurtenances will be measured by the square yard (regardless of thickness) or by the cubic yard of calculated volume, in its original position.

Removing curb, curb and gutter, and concrete traffic barrier will be measured by the foot in its original position. The removal of monolithic concrete curb or dowelled concrete curb will be included in the concrete pavement measurement.

Removing retaining walls will be measured by the square yard along the front face from the top of the wall to the top of the footing.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

4. 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 price bid for "Removing Concrete" of the type specified. This price is full compensation for breaking the concrete; loading, hauling, and salvaging or disposing of the material; and equipment, labor, tools, and incidentals.

Removing retaining wall footings will not be measured or paid for directly but will be subsidiary to this item.

Item 105**Removing Treated and Untreated
Base and Asphalt Pavement**

1. DESCRIPTION

Break, remove, and store or dispose of existing asphalt pavement, including surface treatments, and treated or untreated base materials.

2. CONSTRUCTION

Break material retained by the Department into pieces not larger than 24 in. unless otherwise shown on the plans. Remove existing asphalt pavement before disturbing stabilized base. Avoid contamination of the asphalt materials and damage to adjacent areas. Repair material damaged by operations outside the designated locations.

Stockpile materials designated salvageable at designated sites when shown on the plans or as directed. Prepare stockpile site by removing vegetation and trash and by providing for proper drainage. Material not designated to be salvaged will become the property of the Contractor. When this material is disposed of, do so in conformance with federal, state, and local regulations.

3. MEASUREMENT

This Item will be measured by the 100-ft. station along the baseline of each roadbed, by the square yard of existing treated or untreated base and asphalt pavement in their original position, or by the cubic yard of existing treated or untreated base and asphalt pavement in their original position, as calculated by the average end area method or as shown on the plans. Square yard and cubic yard measurement will be established by the widths and depths shown on the plans and the lengths measured in the field.

4. PAYMENT

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Removing Treated and Untreated Base and Asphalt Pavement" of the depth specified. This price is full compensation for breaking the material, loading, hauling, unloading, and stockpiling or disposing; repair to areas outside designated locations for removal; and equipment, labor, tools, and incidentals.

Item 110

Excavation



1. DESCRIPTION

Excavate areas as shown on the plans or as directed. Remove materials encountered to the lines, grades, and typical sections shown on the plans and cross-sections.

2. MATERIALS

Accept ownership of unsuitable or excess material and dispose of material in conformance with local, state, and federal regulations, at locations outside the right of way.

3. CONSTRUCTION

Maintain drainage in the excavated area to avoid damage to the roadway section. Correct any damage to the subgrade caused by weather at no additional cost to the Department.

Shape slopes to avoid loosening material below or outside the proposed grades. Remove and dispose of slides or slope failures as directed.

Excavate to the grade and sections shown on the plans. Manipulate and compact subgrade in accordance with Section 132.3.4., "Compaction Methods," unless excavation is to clean homogenous rock at final grade.

Correct unsuitable material encountered at or below subgrade as directed.

3.1. **Rock Cuts.** Use approved embankment material compacted in accordance with Section 132.3.4., "Compaction Methods," to replace undercut material at no additional cost if excavation extends below the grade shown on the plans.

3.2. **Earth Cuts.** Scarify remaining material to a depth at least 6 in. below the grade shown on the plans in areas where pavement structure will be placed. Compact subgrade in accordance with Section 132.3.4., "Compaction Methods."

3.3. **Acceptance Criteria.**

3.3.1. **Grade Tolerances.**

3.3.1.1. **Staged Construction.** Grade to within 1.25 in. in the cross-section and 1.25 in. in 16 ft. measured longitudinally.

3.3.1.2. **Turnkey Construction.** Grade to within 0.5 in. in the cross-section and 0.5 in. in 16 ft. measured longitudinally.

4. MEASUREMENT

This Item will be measured by the cubic yard in its original position as computed by the method of average end areas or as shown on the plans.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Limits of measurement for excavation in retaining wall areas will be as shown on the plans.

Shrinkage or swelling factors will not be considered in determining the calculated quantities.

5. 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 price bid for "Excavation (Roadway)," "Excavation (Channel)," "Excavation (Special)," or "Excavation (Roadway and Channel)." This price is full compensation for authorized excavation; drying; undercutting subgrade in rock cuts and reworking or replacing the undercut material; hauling; disposal of material not used elsewhere on the project; scarification and compaction; and equipment, labor, materials, tools, and incidentals.

Drying subgrade deeper than 6 in. below grade as shown on the plans will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method." Excavation and replacement of unsuitable material below grade as shown on the plans will be performed and paid for in conformance with the applicable bid items. However, if Item 132, "Embankment," is not included in the Contract, payment for replacement of unsuitable material will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

Removing, reworking, reshaping, or re-laying existing pavement structure will be paid for in conformance with the appropriate Item.

When a slide or slope failure not due to the Contractor's negligence or operation occurs, payment for removal and disposal of the slide material will be in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

Excavation in backfill areas of retaining walls will not be measured or paid for directly, but will be subsidiary to pertinent Items.

Item 160

Topsoil



1. DESCRIPTION

Furnish and place topsoil to the depths and on the areas shown on the plans.

2. MATERIALS

Use easily cultivated, fertile topsoil that is free of objectionable material and resists erosion. Obtain topsoil from the right of way at sites of proposed excavation or embankment when specified on the plans, or as directed. Secure additional topsoil, if necessary, from approved sources outside the right of way in accordance with Article 7.7., "Preservation of Cultural and Natural Resources and the Environment." Ensure that the topsoil obtained from sites outside the right of way has a pH of 5.5–8.5, per [Tex-128-E](#). Topsoil is subject to testing by the Engineer. Furnish water in accordance with Article 168.2., "Materials."

3. CONSTRUCTION

Remove and dispose of objectionable material from the topsoil source before beginning the work. Stockpile topsoil, when necessary, in a windrow at designated locations along the right of way line or as directed. Keep source and stockpile areas drained during topsoil removal and leave them in a neat condition when removal is complete. Scarify the area to a depth of 4 in. before placing topsoil. Spread the topsoil to a uniform loose cover at the thickness specified. Place and shape the topsoil as directed. Water and roll the topsoil using a light roller or other suitable equipment.

4. MEASUREMENT

This Item will be measured by the 100-ft. station along the baseline of each roadbed, by the square yard, or by the cubic yard in vehicles at the point of delivery.

5. 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 price bid for "Furnishing and Placing Topsoil" of the depth specified on the plans (except for measurement by the cubic yard). This price is full compensation for securing necessary sources and royalties; furnishing topsoil; excavation, loading, hauling, stockpiling, and placing; watering; rolling; and equipment, labor, materials, tools, and incidentals. Limits of excavation and embankment for payment are shown in Figure 1.

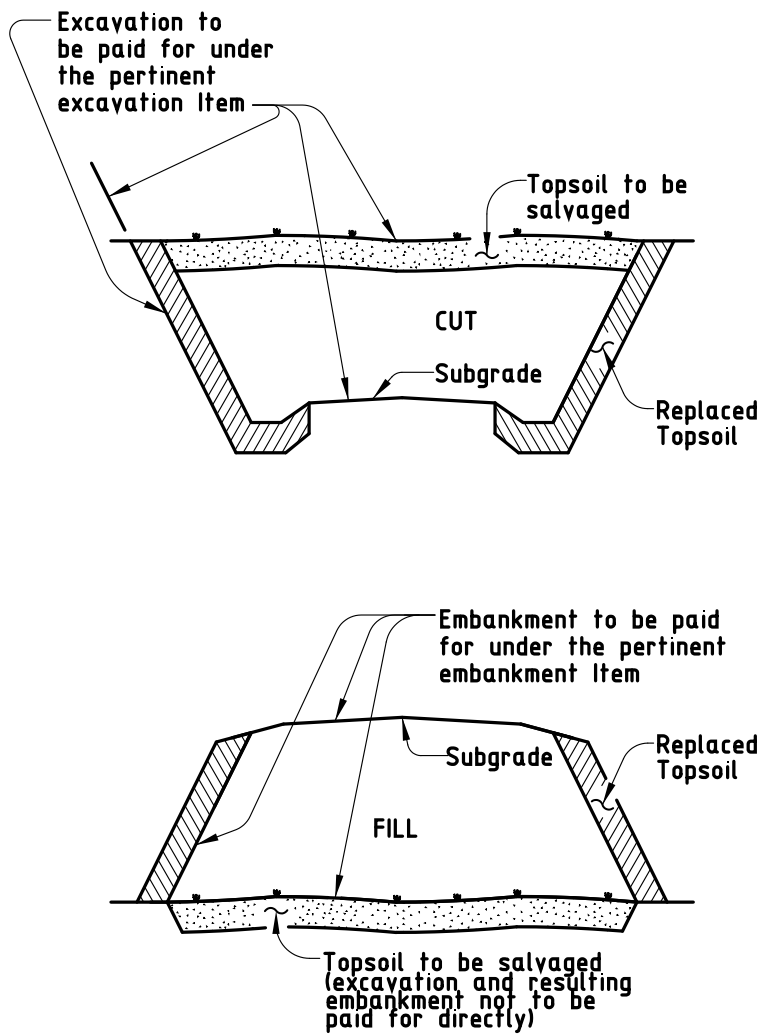


Figure 1
Roadway Cross-Sections Showing Payment for Excavation and Embankment

Item 164

Seeding for Erosion Control



1. DESCRIPTION

Prepare the surface and provide and distribute temporary or permanent seeding for erosion control as shown on the plans or as directed.

2. MATERIALS

- 2.1. **Seed.** Provide seed from the previous season's crop meeting the requirements of the Texas Seed Law, including the testing and labeling for pure live seed (PLS = Purity × Germination). Furnish seed of the designated species in labeled unopened bags or containers to the Engineer before planting. Use within 12 mo. from the date of the analysis. When Buffalograss is specified, use seed that is treated with potassium nitrate (KNO_3) to overcome dormancy.

Use Tables 1–5 to determine the appropriate seeding mix and rates as shown on the plans. Include flower seeding mix in accordance with Table 5 with seeding mix shown in Table 1 and Table 2.

If a grass plant species is not available by the producers, the other grass plant species in the seeding mix will be increased proportionally by the percentage of the missing plant grass species. If a flower plant species is not available by the producers, the other flower species in the seeding mix will be increased proportionally by the percentage of the missing flower species. Substitute species and rates require approval of the Engineer before being incorporated into the seeding mix. The rates listed in the tables are for drill seeding. All other methods of placing seed will require a 25% increase in rate.

Table 1
Permanent Rural Seeding Mix

District	Clay Soils Species, Percent, and Rate (lb. PLS per acre)		Sandy Soils Species, Percent, and Rate (lb. PLS per acre)	
1 (Paris)	Hooded Windmillgrass (Burnet)	15% 0.3	Hooded Windmillgrass (Burnet)	15% 0.3
	White Tridens (Guadalupe)	20% 0.4	Sand Dropseed (Taylor)	15% 0.3
	Little Bluestem (Coastal Plains)	20% 2.0	Little Bluestem (Coastal Plains)	20% 2.0
	Florida Paspalum (Harrison)	15% 2.25	Florida Paspalum (Harrison)	15% 2.25
	Sideoats Grama (Haskell)	05% 0.5	Splitbeard Bluestem (Neches)	10% 1.0
	Splitbeard Bluestem (Neches)	05% 0.5	Sand Lovegrass (Mason)	10% 0.4
	Sand Dropseed (Taylor)	05% 0.1	Green Sprangletop (Van Horn)	15% 0.6
	Canada Wildrye (Lavaca)	10% 2.0		
	Green Sprangletop (Van Horn)	05% 0.2		
2 (Fort Worth)	Hooded Windmillgrass (Burnet)	15% 0.3	Sand Dropseed (Taylor)	15% 0.3
	White Tridens (Guadalupe)	15% 0.3	Sideoats Grama (Haskell)	15% 1.5
	Sideoats Grama (Haskell)	10% 1.0	Little Bluestem (OK Select)	15% 1.05
	Little Bluestem (OK Select)	10% 0.7	Hairy Grama (Chaparral)	15% 0.6
	Buffalograss (Texoka)	10% 1.5	Green Sprangletop (Van Horn)	10% 0.2
	Silver Bluestem (Santiago)	10% 0.4	Hooded Windmillgrass (Burnet)	10% 0.2
	Green Sprangletop (Van Horn)	10% 0.4	Shortspike Windmillgrass (Welder)	10% 0.2
	Sand Dropseed (Taylor)	10% 0.2	Silver Bluestem (Santiago)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0		

Table 1 (continued)
Permanent Rural Seeding Mix

District	Clay Soils		Sandy Soils	
	Species, Percent, and Rate (lb. PLS per acre)		Species, Percent, and Rate (lb. PLS per acre)	
3 (Wichita Falls)	Sideoats Grama (Haskell)	15% 1.5	Hooded Windmillgrass (Burnet)	10% 0.2
	Green Sprangletop (Van Horn)	10% 0.4	Sand Dropseed (Taylor)	15% 0.3
	Hooded Windmillgrass (Burnet)	10% 0.2	Green Sprangletop (Van Horn)	15% 0.6
	White Tridens (Guadalupe)	10% 0.2	Sideoats Grama (Haskell)	10% 1.0
	Little Bluestem (OK Select)	15% 1.05	Little Bluestem (OK Select)	10% 0.7
	Silver Bluestem (Santiago)	10% 0.4	Silver Bluestem (Santiago)	10% 0.4
	Buffalograss (Texoka)	10% 1.5	Hairy Grama (Chaparral)	10% 0.4
	Blue Grama (Hachita)	05% 0.2	Arizona Cottontop (La Salle)	10% 0.4
	Sand Dropseed (Taylor)	05% 0.1	Blue Grama (Hachita)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0		
4 (Amarillo)	Sideoats Grama (Haskell)	15% 1.5	Green Sprangletop (Van Horn)	15% 0.6
	Silver Bluestem (Santiago)	15% 0.6	Sideoats Grama (Haskell)	10% 1.0
	Buffalograss (Texoka)	15% 2.25	Sand Dropseed (Taylor)	10% 0.2
	Green Sprangletop (Van Horn)	10% 0.4	Silver Bluestem (Santiago)	10% 0.4
	Blue Grama (Hachita)	15% 0.6	Little Bluestem (OK Select)	15% 1.05
	Hooded Windmillgrass (Burnet)	05% 0.1	Arizona Cottontop (La Salle)	10% 0.4
	White Tridens (Guadalupe)	10% 0.2	Blue Grama (Hachita)	10% 0.4
	Western Wheatgrass (Barton)	10% 3.0	Sand Lovegrass (Mason)	10% 0.3
	Canada Wildrye (Lavaca)	05% 1.0	Hooded Windmillgrass (Burnet)	10% 0.2
5 (Lubbock)	Sideoats Grama (Haskell)	15% 1.5	Green Sprangletop (Van Horn)	15% 0.6
	Blue Grama (Hachita)	15% 0.6	Blue Grama (Hachita)	15% 0.6
	Silver Bluestem (Santiago)	15% 0.6	Sideoats Grama (Haskell)	10% 1.0
	Buffalograss (Texoka)	10% 1.5	Little Bluestem (OK Select)	10% 0.7
	White Tridens (Guadalupe)	10% 0.2	Hooded Windmillgrass (Burnet)	10% 0.2
	Green Sprangletop (Van Horn)	10% 0.4	Sand Dropseed (Taylor)	10% 0.2
	Hooded Windmillgrass (Burnet)	05% 0.1	Silver Bluestem (Santiago)	10% 0.4
	Galleta Grass (Viva)	05% 0.3	Arizona Cottontop (La Salle)	10% 0.4
	Western Wheatgrass (Barton)	10% 3.0	Sand Lovegrass (Mason)	10% 0.3
	Canada Wildrye (Lavaca)	05% 1.0		
6 (Odessa)	Whiplash Pappusgrass (Permian)	15% 0.9	Sand Dropseed (Taylor)	15% 0.3
	Green Sprangletop (Van Horn)	10% 0.4	Green Sprangletop (Van Horn)	10% 0.4
	Silver Bluestem (Santiago)	15% 0.6	Sideoats Grama (Brewster)	15% 1.5
	Sideoats Grama (Brewster)	10% 1.0	Whiplash Pappusgrass (Permian)	10% 0.6
	Sand Dropseed (Taylor)	10% 0.2	Hooded Windmillgrass (Burnet)	10% 0.2
	Alkali Sacaton (Saltalk)	10% 0.2	Blue Grama (Hachita)	10% 0.4
	Arizona Cottontop (La Salle)	10% 0.4	Hairy Grama (Chaparral)	10% 0.4
	Blue Grama (Hachita)	10% 0.4	Sand Lovegrass (Mason)	10% 0.3
	Galleta Grass (Viva)	10% 0.6	Little Bluestem (Pastura)	05% 0.5
			Galleta Grass (Viva)	05% 0.3
7 (San Angelo)	Sideoats Grama (Brewster)	15% 1.5	Sand Dropseed (Taylor)	15% 0.3
	Hooded Windmillgrass (Burnet)	10% 0.2	Green Sprangletop (Van Horn)	15% 0.6
	Silver Bluestem (Santiago)	10% 0.4	Hooded Windmillgrass (Burnet)	15% 0.3
	Sand Dropseed (Taylor)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	White Tridens (Guadalupe)	10% 0.2	Hairy Grama (Chaparral)	10% 0.4
	Whiplash Pappusgrass (Permian)	15% 0.9	Sand Lovegrass (Mason)	10% 0.3
	Texas Grama (Atascosa)	05% 0.5	Sideoats Grama (Brewster)	10% 1.0
	Green Sprangletop (Van Horn)	10% 0.4	Little Bluestem (OK Select)	10% 0.7
	Little Bluestem (OK Select)	05% 0.35	Whiplash Pappusgrass (Permian)	05% 0.3
	Blue Grama (Hachita)	05% 0.2		
	Galleta Grass (Viva)	05% 0.3		

Table 1 (continued)
Permanent Rural Seeding Mix

District	Clay Soils		Sandy Soils	
	Species, Percent, and Rate (lb. PLS per acre)		Species, Percent, and Rate (lb. PLS per acre)	
8 (Abilene)	Sideoats Grama (Haskell)	10% 1.0	Sand Dropseed (Taylor)	15% 0.3
	Hooded Windmillgrass (Burnet)	10% 0.2	Green Sprangletop (Van Horn)	10% 0.4
	Buffalograss (Texoka)	10% 1.5	Hooded Windmillgrass (Burnet)	15% 0.3
	Blue Grama (Hachita)	10% 0.4	Silver Bluestem (Santiago)	10% 0.4
	Silver Bluestem (Santiago)	10% 0.4	Little Bluestem (OK Select)	10% 0.7
	White Tridens (Guadalupe)	15% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Little Bluestem (OK Select)	10% 0.7	Hairy Grama (Chaparral)	10% 0.4
	Green Sprangletop (Van Horn)	10% 0.4	Sand Lovegrass (Mason)	10% 0.3
	Whiplash Pappusgrass (Permian)	10% 0.6	Arizona Cottontop (La Salle)	10% 0.4
	Galleta Grass (Viva)	10% 0.6		
9 (Waco)	Sideoats Grama (Haskell)	15% 1.5	Hooded Windmillgrass (Burnet)	15% 0.3
	White Tridens (Guadalupe)	15% 0.3	Shortspike Windmillgrass (Welder)	10% 0.2
	Hooded Windmillgrass (Burnet)	10% 0.2	Hairy Grama (Chaparral)	10% 0.4
	Little Bluestem (OK Select)	10% 0.7	Sand Dropseed (Taylor)	15% 0.3
	Buffalograss (Texoka)	10% 1.6	Sideoats Grama (Haskell)	10% 1.0
	Halls Panicum (Oso)	05% 0.1	Little Bluestem (OK Select)	10% 0.7
	Silver Bluestem (Santiago)	10% 0.4	Green Sprangletop (Van Horn)	10% 0.4
	Sand Dropseed (Taylor)	05% 0.1	Texas Grama (Atascosa)	05% 0.15
	Green Sprangletop (Van Horn)	10% 0.4	Silver Bluestem (Santiago)	10% 0.4
	Canada Wildrye (Lavaca)	05% 1.0	Canada Wildrye (Lavaca)	05% 1.0
	Texas Grama (Atascosa)	05% 0.5		
10 (Tyler)	Hooded Windmillgrass (Burnet)	15% 0.3	Hooded Windmillgrass (Burnet)	15% 0.3
	White Tridens (Guadalupe)	15% 0.3	Sand Dropseed (Taylor)	10% 0.2
	Sand Dropseed (Taylor)	05% 0.1	Little Bluestem (Coastal Plains)	20% 2.0
	Little Bluestem (Coastal Plains)	20% 2.0	Florida Paspalum (Harrison)	15% 2.25
	Florida Paspalum (Harrison)	15% 2.25	Splitbeard Bluestem (Neches)	10% 1.0
	Splitbeard Bluestem (Neches)	10% 1.0	Green Sprangletop (Van Horn)	05% 0.2
	Green Sprangletop (Van Horn)	05% 0.2	Sand Lovegrass (Mason)	10% 0.4
	Sideoats Grama (Haskell)	05% 0.5	Red Lovegrass (Duval)	10% 0.2
	Canada Wildrye (Lavaca)	10% 2.0	Hairy Grama (Chaparral)	05% 0.2
11 (Lufkin)	Hooded Windmillgrass (Burnet)	15% 0.3	Hooded Windmillgrass (Burnet)	15% 0.3
	White Tridens (Guadalupe)	15% 0.3	Sand Dropseed (Taylor)	10% 0.2
	Little Bluestem (Coastal Plains)	20% 2.0	Little Bluestem (Coastal Plains)	20% 2.0
	Florida Paspalum (Harrison)	15% 2.25	Florida Paspalum (Harrison)	15% 2.25
	Green Sprangletop (Van Horn)	05% 0.2	Splitbeard Bluestem (Neches)	10% 1.0
	Sideoats Grama (Haskell)	05% 0.5	Green Sprangletop (Van Horn)	05% 0.2
	Splitbeard Bluestem (Neches)	10% 1.0	Red Lovegrass (Duval)	10% 0.2
	Sand Dropseed (Taylor)	05% 0.1	Sand Lovegrass (Mason)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0	Hairy Grama (Chaparral)	05% 0.2
12 (Houston)	White Tridens (Guadalupe)	10% 0.2	Hooded Windmillgrass (Mariah)	15% 0.3
	Hooded Windmillgrass (Mariah)	10% 0.2	Sand Dropseed (Nueces)	15% 0.3
	Shortspike Windmillgrass (Welder)	15% 0.3	Shortspike Windmillgrass (Welder)	10% 0.2
	Little Bluestem (Coastal Plains)	15% 1.5	Little Bluestem (Coastal Plains)	15% 1.5
	Florida Paspalum (Harrison)	15% 2.25	Red Lovegrass (Duval)	10% 0.2
	Red Lovegrass (Duval)	05% 0.1	Florida Paspalum (Harrison)	15% 2.25
	Halls Panicum (Oso)	10% 0.2	Splitbeard Bluestem (Neches)	10% 1.0
	Splitbeard Bluestem (Neches)	05% 0.5	Hairy Grama (Chaparral)	05% 0.2
	Sand Dropseed (Nueces)	05% 0.1	Green Sprangletop (Van Horn)	05% 0.2
	Canada Wildrye (Lavaca)	10% 2.0		
13 (Yoakum)	White Tridens (Guadalupe)	15% 0.3	Hairy Grama (Chaparral)	15% 0.6
	Shortspike Windmillgrass (Welder)	15% 0.3	Hooded Windmillgrass (Mariah)	15% 0.3
	Halls Panicum (Oso)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Sand Dropseed (Nueces)	10% 0.2
	Little Bluestem (Coastal Plains)	15% 1.5	Little Bluestem (Carrizo)	10% 1.5
	Sideoats Grama (South Texas)	05% 0.75	Red Lovegrass (Duval)	10% 0.2
	Texas Grama (Atascosa)	10% 1.0	Slender Grama (Dilley)	10% 1.0
	Hooded Windmillgrass (Mariah)	05% 0.1	Plains Bristlegrass (Catarina)	10% 0.4
	Sand Dropseed (Nueces)	05% 0.1	Green Sprangletop (Van Horn)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0		

Table 1 (continued)
Permanent Rural Seeding Mix

District	Clay Soils		Sandy Soils	
	Species, Percent, and Rate (lb. PLS per acre)		Species, Percent, and Rate (lb. PLS per acre)	
14 (Austin)	Hooded Windmillgrass (Burnet)	20% 0.4	Hairy Grama (Chaparral)	15% 0.6
	White Tridens (Guadalupe)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Sideoats Grama (South Texas)	10% 1.5	Hooded Windmillgrass (Burnet)	10% 0.2
	Shortspike Windmillgrass (Welder)	10% 0.2	Red Lovegrass (Duval)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Sand Dropseed (Nueces)	10% 0.2
	Silver Bluestem (Santiago)	10% 0.4	Little Bluestem (Carrizo)	10% 1.5
	Little Bluestem (OK Select)	10% 0.7	Sideoats Grama (South Texas)	10% 1.5
	Halls Panicum (Oso)	05% 0.1	Silver Bluestem (Santiago)	10% 0.4
	Texas Grama (Atascosa)	05% 0.5	Plains Bristlegrass (Catarina)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0	Arizona Cottontop (La Salle)	05% 0.2
15 (San Antonio)	Sideoats Grama (South Texas)	15% 2.25	Slender Grama (Dilley)	15% 1.5
	White Tridens (Guadalupe)	15% 0.3	Hairy Grama (Chaparral)	15% 0.6
	Shortspike Windmillgrass (Welder)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Halls Panicum (Oso)	10% 0.2	Hooded Windmillgrass (Mariah)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Red Lovegrass (Duval)	10% 0.2
	False Rhodes Grass (Kinney)	05% 0.1	Sand Dropseed (Nueces)	10% 0.2
	Hooded Windmillgrass (Mariah)	05% 0.1	Pink Pappusgrass (Maverick)	05% 0.3
	Pink Pappusgrass (Maverick)	10% 0.6	Little Bluestem (Carrizo)	10% 1.5
	Texas Grama (Atascosa)	05% 0.5	Arizona Cottontop (La Salle)	05% 0.2
	Multiflower False Rhodes Grass (Hidalgo)	10% 0.2	Multiflower False Rhodes Grass (Hidalgo)	05% 0.1
16 (Corpus Christi)	Arizona Cottontop (La Salle)	05% 0.2	Plains Bristlegrass (Catarina)	05% 0.2
	Shortspike Windmillgrass (Welder)	15% 0.3	Slender Grama (Dilley)	15% 1.5
	Pink Pappusgrass (Maverick)	10% 0.6	Hairy Grama (Chaparral)	15% 0.6
	Halls Panicum (Oso)	10% 0.2	Hooded Windmillgrass (Mariah)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Red Lovegrass (Duval)	10% 0.2
	White Tridens (Guadalupe)	10% 0.2	Sand Dropseed (Nueces)	10% 0.2
	Multiflower False Rhodes Grass (Hidalgo)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Hooded Windmillgrass (Mariah)	10% 0.2	Pink Pappusgrass (Maverick)	10% 0.6
	Arizona Cottontop (La Salle)	05% 0.2	Multiflower False Rhodes Grass (Hidalgo)	10% 0.2
	Sand Dropseed (Nueces)	05% 0.1	Arizona Cottontop (La Salle)	05% 0.2
17 (Bryan)	Sideoats Grama (South Texas)	10% 1.5	Little Bluestem (Carrizo)	05% 0.75
	Texas Grama (Atascosa)	05% 0.5		
	White Tridens (Guadalupe)	15% 0.3	Sand Dropseed (Taylor)	10% 0.2
	Hooded Windmillgrass (Burnet)	15% 0.3	Shortspike Windmillgrass (Welder)	10% 0.2
	Little Bluestem (Coastal Plains)	15% 1.5	Little Bluestem (Coastal Plains)	15% 1.5
	Florida Paspalum (Harrison)	15% 2.25	Green Sprangletop (Van Horn)	05% 0.2
	Shortspike Windmillgrass (Welder)	10% 0.2	Florida Paspalum (Harrison)	15% 2.25
	Splitbeard Bluestem (Neches)	05% 0.5	Splitbeard Bluestem (Neches)	10% 1.0
	Green Sprangletop (Van Horn)	05% 0.2	Hooded Windmillgrass (Burnet)	15% 0.3
	Halls Panicum (Oso)	05% 0.1	Red Lovegrass (Duval)	10% 0.2
18 (Dallas)	Sand Dropseed (Taylor)	05% 0.1	Hairy Grama (Chaparral)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0		
	Sideoats Grama (Haskell)	15% 1.5	Shortspike Windmillgrass (Welder)	10% 0.2
	Hooded Windmillgrass (Burnet)	15% 0.3	Hairy Grama (Chaparral)	15% 0.6
	White Tridens (Guadalupe)	15% 0.3	Sand Dropseed (Taylor)	10% 0.2
	Little Bluestem (OK Select)	15% 1.05	Little Bluestem (OK Select)	15% 1.05
	Buffalograss (Texoka)	10% 1.5	Sideoats Grama (Haskell)	10% 1.0
	Silver Bluestem (Santiago)	05% 0.2	Green Sprangletop (Van Horn)	10% 0.4
	Green Sprangletop (Van Horn)	05% 0.2	Hooded Windmillgrass (Burnet)	10% 0.2
	Shortspike Windmillgrass (Welder)	05% 0.1	Sand Lovegrass (Mason)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0	Silver Bluestem (Santiago)	10% 0.4
	Sand Dropseed (Taylor)	05% 0.1		

Table 1 (continued)
Permanent Rural Seeding Mix

District	Clay Soils		Sandy Soils	
	Species, Percent, and Rate (lb. PLS per acre)		Species, Percent, and Rate (lb. PLS per acre)	
19 (Atlanta)	White Tridens (Guadalupe)	15% 0.3	Hooded Windmillgrass (Burnet)	15% 0.3
	Hooded Windmillgrass (Burnet)	15% 0.3	Sand Dropseed (Taylor)	10% 0.2
	Little Bluestem (Coastal Plains)	20% 2.0	Little Bluestem (Coastal Plains)	20% 2.0
	Florida Paspalum (Harrison)	15% 2.25	Florida Paspalum (Harrison)	15% 2.25
	Sideoats Grama (Haskell)	10% 1.0	Splitbeard Bluestem (Neches)	10% 1.0
	Splitbeard Bluestem (Neches)	05% 0.5	Sand Lovegrass (Mason)	10% 0.4
	Green Sprangletop (Van Horn)	05% 0.2	Red Lovegrass (Duval)	10% 0.2
	Sand Dropseed (Taylor)	05% 0.1	Hairy Grama (Chaparral)	10% 0.4
	Canada Wildrye (Lavaca)	10% 2.0		
20 (Beaumont)	White Tridens (Guadalupe)	10% 0.2	Hooded Windmillgrass (Mariah)	15% 0.3
	Hooded Windmillgrass (Mariah)	10% 0.2	Sand Dropseed (Nueces)	15% 0.3
	Shortspike Windmillgrass (Welder)	15% 0.3	Shortspike Windmillgrass (Welder)	10% 0.2
	Little Bluestem (Coastal Plains)	15% 1.5	Little Bluestem (Coastal Plains)	15% 1.5
	Florida Paspalum (Harrison)	15% 2.25	Red Lovegrass (Duval)	10% 0.2
	Red Lovegrass (Duval)	05% 0.1	Florida Paspalum (Harrison)	15% 2.25
	Halls Panicum (Oso)	10% 0.2	Splitbeard Bluestem (Neches)	10% 1.0
	Splitbeard Bluestem (Neches)	05% 0.5	Hairy Grama (Chaparral)	05% 0.2
	Sand Dropseed (Nueces)	05% 0.1	Green Sprangletop (Van Horn)	05% 0.2
	Canada Wildrye (Lavaca)	10% 2.0		
21 (Pharr)	Shortspike Windmillgrass (Welder)	10% 0.2	Slender Grama (Dilley)	10% 1.0
	Halls Panicum (Oso)	10% 0.2	Hairy Grama (Chaparral)	10% 0.4
	White Tridens (Guadalupe)	10% 0.2	Shortspike Windmillgrass (Welder)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Red Lovegrass (Duval)	10% 0.2
	Pink Pappusgrass (Maverick)	10% 0.6	Sand Dropseed (Nueces)	10% 0.2
	Texas Grama (Atascosa)	10% 1.0	Hooded Windmillgrass (Mariah)	10% 0.2
	Multiflower False Rhodes Grass (Hidalgo)	05% 0.1	Pink Pappusgrass (Maverick)	10% 0.6
	Hooded Windmillgrass (Mariah)	10% 0.2	Whiplash Pappusgrass (Webb)	10% 0.6
	Arizona Cottontop (La Salle)	10% 0.4	Multiflower False Rhodes Grass (Hidalgo)	10% 0.2
	Sand Dropseed (Nueces)	05% 0.1	Arizona Cottontop (La Salle)	10% 0.4
	Whiplash Pappusgrass (Webb)	10% 0.6		
22 (Laredo)	Sideoats Grama (South Texas)	15% 2.25	Slender Grama (Dilley)	15% 1.5
	Pink Pappusgrass (Maverick)	10% 0.6	Hairy Grama (Chaparral)	15% 0.6
	Halls Panicum (Oso)	10% 0.2	Hooded Windmillgrass (Mariah)	10% 0.2
	Plains Bristlegrass (Catarina Blend)	10% 0.6	Red Lovegrass (Duval)	10% 0.2
	White Tridens (Guadalupe)	10% 0.2	Sand Dropseed (Nueces)	10% 0.2
	Whiplash Pappusgrass (Webb)	10% 0.6	Pink Pappusgrass (Maverick)	10% 0.6
	Shortspike Windmillgrass (Welder)	05% 0.1	Arizona Cottontop (La Salle)	10% 0.4
	Texas Grama (Atascosa)	10% 1.0	Little Bluestem (Carrizo)	05% 0.75
	False Rhodes Grass (Kinney)	10% 0.2	Sideoats Grama (South Texas)	10% 1.5
23 (Brownwood)	Hooded Windmillgrass (Mariah)	10% 0.2	Shortspike Windmillgrass (Welder)	05% 0.1
	Sideoats Grama (Haskell)	15% 1.5	Green Sprangletop (Van Horn)	15% 0.6
	Hooded Windmillgrass (Burnet)	15% 0.3	Sand Dropseed (Taylor)	15% 0.3
	White Tridens (Guadalupe)	15% 0.3	Sideoats Grama (Haskell)	10% 1.0
	Texas Grama (Atascosa)	10% 1.0	Little Bluestem (OK Select)	15% 1.05
	Little Bluestem (OK Select)	10% 0.7	Silver Bluestem (Santiago)	10% 0.4
	Buffalograss (Texoka)	10% 1.5	Hooded Windmillgrass (Burnet)	10% 0.2
	Silver Bluestem (Santiago)	10% 0.4	Shortspike Windmillgrass (Welder)	10% 0.2
	Shortspike Windmillgrass (Welder)	05% 0.1	Hairy Grama (Chaparral)	10% 0.4
	Sand Dropseed (Taylor)	05% 0.1	Sand Lovegrass (Mason)	05% 0.2
	Green Sprangletop (Van Horn)	05% 0.2		

Table 1 (continued)
Permanent Rural Seeding Mix

District	Clay Soils		Sandy Soils	
	Species, Percent, and Rate (lb. PLS per acre)		Species, Percent, and Rate (lb. PLS per acre)	
24 (El Paso)	Green Sprangletop (Van Horn)	10% 0.4	Sand Dropseed (Taylor)	20% 0.4
	Sideoats Grama (Brewster)	10% 1.0	Sideoats Grama (Brewster)	15% 1.5
	Whiplash Pappusgrass (Permian)	10% 0.6	Green Sprangletop (Van Horn)	15% 0.6
	Silver Bluestem (Santiago)	10% 0.4	Hooded Windmillgrass (Burnet)	10% 0.2
	Blue Grama (Hachita)	10% 0.4	Blue Grama (Hachita)	10% 0.4
	Galleta Grass (Viva)	10% 0.6	Hairy Grama (Chaparral)	05% 0.2
	Alkali Sacaton (Saltalk)	10% 0.2	Spike Dropseed (Potter)	10% 0.1
	Arizona Cottontop (La Salle)	10% 0.4	Little Bluestem (Pastura)	05% 0.5
	Plains Bristlegrass (Catarina Blend)	10% 0.4	Galleta grass (Viva)	10% 0.6
	False Rhodes Grass (Kinney)	10% 0.2		
25 (Childress)	Sideoats Grama (Haskell)	15% 1.5	Sideoats Grama (Haskell)	15% 1.5
	Hooded Windmillgrass (Burnet)	15% 0.3	Green Sprangletop (Van Horn)	10% 0.4
	Blue Grama (Hachita)	10% 0.4	Sand Dropseed (Taylor)	10% 0.2
	Buffalograss (Texoka)	10% 1.5	Hooded Windmillgrass (Burnet)	10% 0.2
	Galleta Grass (Viva)	10% 0.6	Arizona Cottontop (La Salle)	10% 0.4
	Silver Bluestem (Santiago)	15% 0.6	Blue Grama (Hachita)	10% 0.4
	White Tridens (Guadalupe)	10% 0.2	Little Bluestem (OK select)	10% 1.0
	Green Sprangletop (Van Horn)	05% 0.2	Galleta Grass (Viva)	10% 0.6
	Western Wheatgrass (Barton)	05% 1.5	Sand Lovegrass (Mason)	05% 0.15
	Canada Wildrye (Lavaca)	05% 1.0	Canada Wildrye (Lavaca)	10% 2.0

Table 2
Permanent Urban Seeding Mix

District	Clay Soils		Sandy Soils	
	Species and Rates (lb. PLS per acre)		Species and Rates (lb. PLS per acre)	
1 (Paris)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	2.4	Bermudagrass	5.4
	Sideoats Grama (Haskell)	4.5		
2 (Fort Worth)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	3.6
	Bermudagrass	2.4	Bermudagrass	2.1
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
3 (Wichita Falls)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	4.5	Sideoats Grama (El Reno)	3.6
	Bermudagrass	1.8	Bermudagrass	1.8
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
4 (Amarillo)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	2.7
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	0.9
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
			Buffalograss (Texoka)	1.6
5 (Lubbock)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	2.7
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	0.9
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
			Buffalograss (Texoka)	1.6
6 (Odessa)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	3.6	Sideoats Grama (Haskell)	2.7
	Blue Grama (Hachita)	1.2	Sand Dropseed (Borden Co.)	0.4
	Buffalograss (Texoka)	1.6	Blue Grama (Hachita)	0.9
			Buffalograss (Texoka)	1.6
7 (San Angelo)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	7.2	Sideoats Grama (Haskell)	3.2
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
			Blue Grama (Hachita)	0.9
			Buffalograss (Texoka)	1.6

Table 2 (continued)
Permanent Urban Seeding Mix

District	Clay Soils Species and Rates (lb. PLS per acre)	Sandy Soils Species and Rates (lb. PLS per acre)
8 (Abilene)	Green Sprangletop 0.3 Sideoats Grama (Haskell) 3.6 Blue Grama (Hachita) 1.2 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Sand Dropseed (Borden Co.) 0.3 Sideoats Grama (Haskell) 3.6 Blue Grama (Hachita) 0.8 Buffalograss (Texoka) 1.6
9 (Waco)	Green Sprangletop 0.3 Bermudagrass 1.8 Buffalograss (Texoka) 1.6 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
10 (Tyler)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
11 (Lufkin)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
12 (Houston)	Green Sprangletop 0.3 Sideoats Grama (Haskell) 4.5 Bermudagrass 2.4	Green Sprangletop 0.3 Bermudagrass 5.4
13 (Yoakum)	Green Sprangletop 0.3 Sideoats Grama (South Texas) 4.5 Bermudagrass 2.4	Green Sprangletop 0.3 Bermudagrass 5.4
14 (Austin)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (South Texas) 3.6 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
15 (San Antonio)	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Bermudagrass 2.4 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
16 (Corpus Christi)	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Bermudagrass 2.4 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
17 (Bryan)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
18 (Dallas)	Green Sprangletop 0.3 Sideoats Grama (El Reno) 3.6 Buffalograss (Texoka) 1.6 Bermudagrass 2.4	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
19 (Atlanta)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
20 (Beaumont)	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
21 (Pharr)	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Buffalograss (Texoka) 1.6 Bermudagrass 2.4	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
22 (Laredo)	Green Sprangletop 0.3 Sideoats Grama (South Texas) 4.5 Buffalograss (Texoka) 1.6 Bermudagrass 1.8	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed 0.4
23 (Brownwood)	Green Sprangletop 0.3 Sideoats Grama (Haskell) 3.6 Bermudagrass 1.2 Blue Grama (Hachita) 0.9	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4

Table 2 (continued)
Permanent Urban Seeding Mix

District	Clay Soils		Sandy Soils	
	Species and Rates (lb. PLS per acre)		Species and Rates (lb. PLS per acre)	
24 (El Paso)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (South Texas)	3.6	Buffalograss (Texoka)	1.6
	Blue Grama (Hachita)	1.2	Sand Dropseed (Borden Co.)	0.4
	Buffalograss (Texoka)	1.6	Blue Grama (Hachita)	1.8
25 (Childress)	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sand Dropseed (Borden Co.)	0.4
	Blue Grama (Hachita)	1.2	Buffalograss (Texoka)	1.6
	Buffalograss (Texoka)	1.6	Bermudagrass	1.8

Table 3
Temporary Cool Seeding Mix

District	All Soils Species and Rates (lb. PLS per acre)
1 (Paris), 2 (Fort Worth), 3 (Wichita Falls), 4 (Amarillo), 5 (Lubbock), 6 (Odessa), 7 (San Angelo), 8 (Abilene), 18 (Dallas), 19 (Atlanta), 23 (Brownwood), 24 (El Paso), 25 (Childress)	Oats 30.0 Wheat 30.0 Little Barley 5.0 Western Wheatgrass 5.0
9 (Waco), 10 (Tyler), 11 (Lufkin), 12 (Houston), 13 (Yoakum), 14 (Austin), 15 (San Antonio), 16 (Corpus Christi), 17 (Bryan), 20 (Beaumont), 21 (Pharr), 22 (Laredo)	Oats 40.0 Little Barley 5.0

Table 4
Temporary Warm Seeding Mix

District	All Soils Species and Rates (lb. PLS per acre)
All	Brownton Millet 20.0

Table 5
Flower Seeding Mix

District	All Soils Species and Rates (lb. PLS per acre)
1 (Paris), 10 (Tyler), 11 (Lufkin), 12 (Houston), 17 (Bryan), 19 (Atlanta), 20 (Beaumont)	Herbaceous Mimosa (Crockett) 1.5 Illinois Bundleflower (Sabine) 1.5 Thickspike Gayfeather (Pineywoods) 1.5 Purple Prairie Clover (Kaneb) 0.6 Rio Grande Clammyweed (Zapata) 2.0
2 (Fort Worth), 3 (Wichita Falls), 4 (Amarillo), 5 (Lubbock), 6 (Odessa), 7 (San Angelo), 8 (Abilene), 9 (Waco), 18 (Dallas), 23 (Brownwood), 25 (Childress)	Engelmann Daisy (Eldorado) 1.5 Awnless Bushsunflower (Plateau) 1.5 Partridge Pea 1.5 Illinois Bundleflower (Sabine) 1.5 Rio Grande Clammyweed (Zapata) 2.0
13 (Yoakum), 14 (Austin), 15 (San Antonio), 16 (Corpus Christi), 21 (Pharr), 22 (Laredo), 24 (El Paso)	Indian Blanket (Fuego) 1.0 Awnless Bushsunflower (Venado) 0.4 Prostrate Bundleflower (Balli) 1.5 Orange Zexmenia (Goliad) 0.4 Rio Grande Clammyweed (Zapata) 2.0

- 2.2. **Fertilizer.** Use fertilizer in accordance with Article 166.2., "Materials."
- 2.3. **Water.** Use water in accordance with Article 168.2, "Materials."
- 2.4. **Highly Erodible Land (HEL).** Add Bermudagrass to the mix shown in Table 1 at 1.0 PLS per acre if shown on the plans.

- 2.5. **Mulch.**
- 2.5.1. **Straw or Hay Mulch.** Use straw or hay mulch in accordance with Section 162.2.5., “Mulch.”
- 2.5.2. **Hydro Mulch.** Use mulches that are on the Approved Products List. Submit one full set of manufacturer’s literature for the selected material. Keep mulch dry until applied. Do not use molded or rotted material.
- 2.6. **Tacking Methods.** Use a tacking agent applied in conformance with the manufacturer’s recommendations or by a crimping method on all straw or hay mulch operations. Use tacking agents as approved or as shown on the plans.

3. CONSTRUCTION

Scarify the area to a depth of 4 in. before placing the seed, unless otherwise directed. Use approved equipment to vertically track the seedbed as shown on the plans or as directed. Scarify the seedbed to a depth of 4 in. or mow the area before placement of the permanent seed mix when performing permanent seeding after an established temporary seeding. Plant the seed mix specified and mulch, if required, after the area has been completed to lines and grades as shown on the plans.

Apply fertilizer in accordance with Article 166.3., “Construction.” Grass seed, flower seed, and fertilizer may be distributed simultaneously during dry seeding operations, provided each component is applied at the specified rate. Do not combine fertilizer and seed in the same slurry during hydro mulch seeding operations. Apply half of the required fertilizer during the temporary seeding operation and the other half during the permanent seeding operation when temporary and permanent seeding are both specified for the same area.

Water the seeded areas at the rates and frequencies as shown on the plans or as directed.

Distribute the seed or seed mixture uniformly over the areas shown on the plans. Provide equipment with an agitator or method to maintain a uniform seed mixture during distribution.

- 3.1. **Planting Season.**
- 3.1.1. **Temporary Seed.** Plant cool seeding mix September 1–January 31. Plant warm seeding mix February 1–August 30.
- 3.1.2. **Permanent Seed.** End planting season for all Districts by May 15. Begin planting season for each District based on the following.
- **January 15.** 1 (Paris), 10 (Tyler), 11 (Lufkin), 12 (Houston), 13 (Yoakum), 15 (San Antonio), 16 (Corpus Christi), 17 (Bryan), 19 (Atlanta), 20 (Beaumont), 21 (Pharr), and 22 (Laredo).
 - **February 1.** 2 (Fort Worth), 3 (Wichita Falls), 6 (Odessa), 7 (San Angelo), 8 (Abilene), 9 (Waco), 14 (Austin), 18 (Dallas), 23 (Brownwood), 24 (El Paso), and 25 (Childress).
 - **February 15.** 4 (Amarillo) and 5 (Lubbock).
- 3.2. **Broadcast Seeding.** Use hand or mechanical distribution or hydro-seeding on top of the soil unless otherwise directed. Apply the mixture to the area to be seeded within 30 min. of placement of components in the equipment when seed and water are to be distributed as a slurry during hydro-seeding. Roll the planted area using a light roller or other suitable equipment. Roll sloped areas along the contour of the slopes.
- 3.3. **Straw or Hay Mulch Seeding.** Plant seed in accordance with Section 164.3.2., “Broadcast Seeding.” Apply straw or hay mulch uniformly over the seeded area immediately after planting the seed or seed mixture. Apply straw or hay mulch in accordance with Section 164.3.6., “Straw or Hay Mulching.” Apply tack in accordance with Section 164.2.6., “Tacking Methods.”

- 3.4. **Hydro Mulch Seeding.** Plant seed in accordance with Section 164.3.2, "Broadcast Seeding," before placing mulch. Apply mulch uniformly over the seeded area immediately after planting the seed or seed mixture at the following rates.
- **Sandy Soils with Slopes of 3:1 or Less.** 2,500 lb. per acre.
 - **Sandy Soils with Slopes Greater than 3:1.** 3,000 lb. per acre.
 - **Clay Soils with Slopes of 3:1 or Less.** 2,000 lb. per acre.
 - **Clay Soils with Slopes Greater than 3:1.** 2,300 lb. per acre.
- Mulch rates are based on dry weight of mulch per acre. Mix mulch and water to make a slurry and apply uniformly over the seeded area using suitable equipment.
- 3.5. **Drill Seeding.** Plant at a depth of 1/4–1/3 in. using a pasture- or rangeland-type drill unless otherwise directed. Plant seed along the contour of the slopes.
- 3.6. **Straw or Hay Mulching.** Apply straw or hay mulch uniformly over the area as shown on the plans. Apply straw mulch at 2–2.5 ton per acre. Apply hay mulch at 1.5–2 ton per acre. Use a tacking method over the mulched area in accordance with Section 164.2.6., "Tacking Methods."

4. MEASUREMENT

This Item will be measured by the square yard or by the acre.

5. 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 price bid for "Broadcast Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Broadcast Seeding (Temp)" of warm or cool season specified, "Straw or Hay Mulch Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Straw or Hay Mulch Seeding (Temp)" of warm or cool season specified, "Hydro Mulch Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Hydro Mulch Seeding (Temp)" of warm or cool season specified, "Drill Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Drill Seeding (Temp)" of warm or cool season specified, and "Straw or Hay Mulching." This price is full compensation for furnishing materials, seeding mix, flower seeding mix, HEL seeding mix, water for hydro-seeding and hydro-mulching operations, mowing, tacking, labor, equipment, tools, supplies, and incidentals.

Fertilizer will not be paid for directly, but will be subsidiary to this Item.

Water for irrigating the seeded area, when specified, will be paid for under Item 168, "Vegetative Watering."

Item 169

Soil Retention Blankets



1. DESCRIPTION

Provide and install soil retention blankets (SRB) as shown on the plans or as directed.

2. MATERIALS

Provide only SRB in accordance with [DMS-6370](#), "Soil Retention Blankets," and on the Approved Products List. Use material of the following product type as shown on the plans and provide a copy of the manufacturer's label for the selected product.

Provide an approved wildlife-friendly or spray-on SRB as shown on the plans.

2.1. Slope Protection Categories.

2.1.1. Slope Type.

2.1.1.1. **Moderate.** Slopes 3:1 or flatter.

2.1.1.2. **Steep.** Slopes steeper than 3:1.

2.1.2. **Soil Type.** Clay or sandy soils as shown on the plans.

2.1.3. **Application Type.** Unless otherwise shown on the plans, use rolled SRB or sprayed SRB.

2.1.4. Duration.

2.1.4.1. **Rolled SRB.** Short-term SRB lasting up to 12 mo. and long-term SRB lasting 12 mo. to 35 mo.

2.1.4.2. **Sprayed SRB.** Short-term SRB lasting up to 6 mo. and long-term SRB lasting 6 mo. or more.

2.2. Channel Protection Categories.

2.2.1. **Duration.** Temporary or permanent as shown on the plans.

2.2.2. **Shear Stress Condition.** 2, 4, 6, or 8 lb. per square foot as shown on the plans.

3. CONSTRUCTION

Provide a copy of the manufacturer's installation instructions to the Engineer before placement of the material. Place the SRB within 24 hr. after the seeding or sodding operation, or when directed. Install and anchor the SRB in conformance with the manufacturer's published literature. Before placement, mow the area to a maximum height of 4 in. or in conformance with the manufacturer's instructions. Installation includes the repair of ruts, reseeding or resodding, and the removal of rocks, clods, and other foreign materials that may prevent contact of the blanket with the soil.

4. MEASUREMENT

This Item will be measured by the square yard of surface area covered.

5. 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 price bid for "Soil Retention Blanket" of the product type shown on the plans. This price is full compensation for equipment, materials, labor, tools, mowing, and incidentals.

Item 216

Proof Rolling



1. DESCRIPTION

Proof-roll earthwork, base, or both to locate unstable areas.

2. EQUIPMENT

- 2.1. **Specified Equipment.** Furnish rollers that weigh at least 25 ton when loaded. The maximum acceptable load is 50 ton. Provide rollers that meet the requirements of Section 210.2.4., "Pneumatic Tire Rollers."
- 2.2. **Alternative Equipment.** The Contractor may use alternate compaction equipment that produces results equivalent to the specified equipment in the same period of time as approved. Discontinue the use of the alternative equipment and furnish the specified equipment if the desired results are not achieved.

3. CONSTRUCTION

Perform proof rolling as directed. Adjust the load and tire inflation pressures within the range of the manufacturer's charts or tabulations, as directed. Make at least two coverages with the proof roller. Offset each trip of the roller by at most one tire width. Operate rollers at a speed between 2 and 6 mph, as directed. Correct unstable or nonuniform areas, if found, in conformance with the applicable Item.

4. MEASUREMENT

Rolling will be measured by the hour operated on surfaces being tested.

5. PAYMENT

The work performed and equipment furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Proof Rolling." This price is full compensation for furnishing and operating equipment and for labor, materials, tools, and incidentals.

Item 247

Flexible Base



1. DESCRIPTION

Construct a foundation course composed of flexible base.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the Engineer of the proposed material sources and of changes to material sources. The Engineer may sample and test project materials at any time before compaction throughout the duration of the project to assure specification compliance.

- 2.1. **Aggregate.** Furnish aggregate of the type and grade shown on the plans and meeting the requirements shown in Table 1. Each source must meet Table 1 requirements for liquid limit, plasticity index, and wet ball mill for the grade specified. Do not use additives, such as but not limited to lime, cement, or fly ash to modify aggregates to meet the requirements of Table 1, unless shown on the plans.

Unless otherwise shown on the plans, the unconfined compressive strength is waived when the flexible base material meets the #200 sieve requirement. When the #200 sieve requirement does not meet the specification in Table 1, the unconfined compressive strength is required.

Table 1
Material Requirements

Property	Test Method	Grade 1-2 ³	Grade 3	Grade 4	Grade 5
Master gradation sieve size (cumulative % retained)	Tex-110-E			As shown on the plans	
2-1/2"		0	0		0
1-3/4"		0-10	0-10		0-5
7/8"		10-35	—		10-35
3/8"		30-65	—		35-65
#4		45-75	45-75		45-75
#40		65-90	50-85		70-90
#200 ^{1, 2}		85-95	—		—
Liquid limit, % Max	Tex-104-E	40	40		35
Plasticity index, Max	Tex-106-E	10	12		10
Plasticity index, Min		As shown on the plans	As shown on the plans		As shown on the plans
Wet ball mill, % Max	Tex-116-E	40	—		40
Wet ball mill, % Max increase passing the #40 sieve		20	—		20
Min compressive strength ² , psi	Tex-117-E				
lateral pressure 0 psi		35	—		—
lateral pressure 3 psi		—	—		90
lateral pressure 15 psi		175	—		175

- The #200 sieve test is only required to meet the waiver of the unconfined compressive strength requirement. The #200 sieve test requirement is only applicable to stockpile samples from Section 247.2.4.
- Compressive strength and #200 sieve test requirements are waived when the flexible base is mixed with or without existing material and treated with cement, emulsion, foamed asphalt, or lime, unless otherwise shown on the plans.
- Grade 3 may be substituted for Grade 1-2 or Grade 5 when the flexible base is mixed with or without existing material and treated with cement, emulsion, foamed asphalt, or lime, as approved. The Grade 3 flexible base must meet the wet ball mill requirements of Grade 1-2 or Grade 5 as applicable.

- 2.1.1. **Material Tolerances.** The Engineer may accept material if no more than one of the five most recent gradation tests has an individual sieve outside the specified limits of the gradation. This allowance does not apply to the #200 sieve requirement.
- The Engineer may accept material if no more than one of the five most recent liquid limit or plasticity index tests is outside the specified limit. No single failing liquid limit or plasticity index test may exceed the allowable limit by more than 2 percentage points.
- 2.1.2. **Material Types.** Do not use fillers or binders unless approved. Furnish the type shown on the plans in accordance with the following.
- 2.1.2.1. **Type A.** Crushed stone produced and graded from oversize quarried aggregate that originates from a single, naturally occurring source. Do not use gravel or multiple sources.
- 2.1.2.2. **Type B.** Crushed or uncrushed gravel. Blending of two or more sources is allowed.
- 2.1.2.3. **Type C.** Crushed gravel with a minimum of 60% of the particles retained on a No. 4 sieve with two or more crushed faces as determined in accordance with [Tex-460-A](#), Part I. Blending of two or more sources is allowed.
- 2.1.2.4. **Type D.** Type A material or crushed concrete. Crushed concrete containing gravel will be considered Type D material. Crushed concrete must meet the requirements of Section 247.2.1.2.6., "Recycled Material," and be managed in a way to provide for uniform quality. The Engineer may require separate dedicated stockpiles to verify compliance.
- 2.1.2.5. **Type E.** Caliche, iron ore, or as otherwise shown on the plans.
- 2.1.2.6. **Recycled Material.** Reclaimed asphalt pavement (RAP) and other recycled materials may be used when shown on the plans. Request approval to blend two or more sources of recycled materials. When RAP is allowed, do not exceed 20% RAP by weight, unless otherwise shown on the plans. The percentage limitations for other recycled materials will be as shown on the plans.
- Provide recycled materials, other than RAP, that have a maximum sulfate content of 3,000 ppm when tested in accordance with [Tex-145-E](#). Certify compliance with [DMS-11000](#), "Evaluating and Using Nonhazardous Recyclable Materials Guidelines." In addition, recycled materials must be free of reinforcing steel and other objectionable material and have at most 1.5% deleterious material when tested in accordance with [Tex-413-A](#). The liquid limit, plasticity index, wet ball mill, and compressive strength for all recycled materials are waived. When using RAP, crush RAP so that 100% passes the 2-in. sieve and does not exceed a maximum percent loss from decantation of 5.0% when tested in accordance with [Tex-406-A](#). Test RAP without removing the asphalt. The final product must meet the requirements shown in Table 1 for the grade specified except when the Department requires a specific amount of Department-furnished RAP be added to the blend, unless otherwise shown on the plans.
- The Contractor is responsible for uniformly blending the recycled material with the flexible base material to build a stockpile to meet the percentages required. Any Contractor-furnished surplus of recycled materials will remain the property of the Contractor. Remove Contractor-owned recycled materials from the project and dispose of them in accordance with federal, state, and local regulations before project acceptance.
- 2.2. **Water.** Furnish water free of industrial wastes and other objectionable matter.
- 2.3. **Material Sources.** Expose the vertical faces of all strata of material proposed for use when non-commercial sources are used. Secure and process the material by successive vertical cuts extending through all exposed strata, when directed.
- 2.4. **Stockpile Approval.** Stockpile is approved when the Engineer's test results meet the material requirements shown in Table 1.

- 2.4.1. **Sampling.** The Contractor and the Engineer will sample flexible base from completed stockpiles in accordance with [Tex-100-E](#). Personnel conducting sampling must be certified by the Department-approved soils and base certification program.

Sampling stockpiles may be located at the production site or at the project location. The Contractor will witness the Engineer's sampling and sample the stockpile for their own testing, and label as deemed necessary.

Sample the stockpile for the Engineer when shown on the plans. When the Contractor samples the stockpile for the Engineer, the Engineer must witness the sampling of material designated for the Engineer and the Materials and Tests Division (MTD). The Engineer will label their sampling containers as "Engineer" and "MTD," or as deemed necessary.

The Engineer will take immediate possession of the sample containers for the Engineer and MTD. The Engineer will maintain custody of the samples until all testing and reporting are completed.

- 2.4.2. **Referee Testing.** Referee testing is applicable for stockpile testing only. MTD is the referee laboratory. MTD may designate a laboratory from the Department's MPL for Commercial Laboratories Approved for Flexible Base Referee Requests as the referee laboratory as deemed necessary. The designated laboratory cannot be performing any testing under this Item for the Engineer or Contractor.

The Contractor may request referee testing when the Engineer's test results fail to meet any of the material requirements shown in Table 1 and the Contractor's sample from Section 2.4.1., "Sampling," for the same failing Department test, passes. The tests must be performed by a laboratory listed on the Department's MPL for Commercial Laboratories Approved for Flexible Base Referee Requests. Submit the request by email within 5 working days after receiving failing test results from the Engineer. Include completed test reports passing the applicable requirements shown in Table 1 in the email.

Record and submit completed test reports electronically on Department-provided templates in their original format meeting the applicable material requirements shown in Table 1. Use Department-provided templates to record and calculate all test data. The Engineer and the Contractor will provide any available test results to the other party when requested.

3. EQUIPMENT

Provide machinery, tools, and equipment necessary for proper execution of the work.

- 3.1. **Rollers.** Provide rollers in accordance with Item 210, "Rolling." Provide proof rollers in accordance with Item 216, "Proof Rolling," when required.
- 3.2. **Inertial Profiler.** When ride quality measurement is required, provide a high-speed or lightweight inertial profiler certified at the Texas A&M Transportation Institute. Provide equipment certification documentation. Display a current decal on the equipment indicating the certification expiration date.

4. CONSTRUCTION

Construct each layer uniformly, free of loose or segregated areas, and with the required density and moisture content. Provide a smooth surface that conforms to the typical sections, lines, and grades shown on the plans or as directed.

Stockpile base material temporarily at an approved location before delivery to the roadway. Build stockpiles in layers no greater than 2 ft. thick. Stockpiles must have a total height between 10 and 16 ft. unless otherwise approved. After construction and acceptance of the stockpile in accordance with Section 247.2.4., "Stockpile Approval," loading from the stockpile for delivery is allowed. Load by making successive vertical cuts through the entire depth of the stockpile.

Do not add or remove material from temporary stockpiles that require sampling and testing before delivery, unless otherwise approved. Charges for additional sampling and testing required as a result of adding or removing material will be deducted from the Contractor's estimates.

Haul approved flexible base in clean trucks. Deliver the required quantity to each 100-ft. station or designated stockpile site as shown on the plans. Prepare stockpile sites as directed. When delivery is to the 100-ft. station, manipulate in conformance with the applicable Items.

- 4.1. **Preparation of Subgrade or Existing Base.** Remove or scarify existing asphalt concrete pavement in accordance with Item 105, "Removing Treated and Untreated Base and Asphalt Pavement," when shown on the plans or as directed. Shape the subgrade or existing base to conform to the typical sections shown on the plans or as directed.

When new base is required to be mixed with existing base, deliver, place, and spread the new flexible base in the required amount per station. Manipulate and thoroughly mix the new base with existing material to provide a uniform mixture to the specified depth before shaping.

Proof roll the roadbed in accordance with Item 216 before pulverizing or scarifying when shown on the plans or directed. Correct soft spots as directed.

- 4.2. **Placing.** Spread and shape flexible base into a uniform layer using an approved spreader the same day as delivered unless otherwise approved. Construct layers to the thickness shown on the plans. Maintain the shape of the course. Control dust by sprinkling, as directed. Correct or replace segregated areas as directed at no additional expense to the Department.

Place successive base courses and finish courses using the same construction methods required for the first course.

- 4.3. **Compaction.** Compact using density control unless otherwise shown on the plans. Multiple lifts are permitted when shown on the plans or approved. Bring each layer to the moisture content directed. When necessary, sprinkle the material in accordance with Item 204, "Sprinkling." Maintain moisture during compaction within $\pm 2.0\%$ of the optimum moisture content as determined in accordance with [Tex-113-E](#).

Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the roller unit. Begin rolling at the low side and progress toward the high side on superelevated curves. Offset alternating trips of the roller. Operate rollers at a speed between 2 and 6 mph as directed.

Rework, recompact, and refinish material that fails to meet or that loses required moisture, density, stability, or finish requirements before the next course is placed or the project is accepted. Continue work until specification requirements are met. Perform the work at no additional expense to the Department.

Before final acceptance, the Engineer will select the locations of tests and measure the flexible base depth in accordance with [Tex-140-E](#). Correct areas deficient by more than 1/2 in. in thickness by scarifying, adding material as required, reshaping, recompact, and refinishing at the Contractor's expense.

- 4.3.1. **Ordinary Compaction.** Roll using approved compaction equipment as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing approved material as required, reshaping, and recompact.

- 4.3.2. **Density and Moisture Control.** Compact to a minimum of 100% of the maximum dry density and within $\pm 2.0\%$ of the optimum moisture content as determined in accordance with [Tex-113-E](#), unless otherwise shown on the plans. Provide the Engineer with the beginning and ending station numbers of the area completed for testing. The Engineer will determine roadway density and moisture content of completed sections in accordance with [Tex-115-E](#), Part I. The Engineer will determine random locations for testing in accordance with [Tex-115-E](#), Part IV. Do not achieve density by drying the material after compaction.

When the density is less than 100% of the maximum dry density, the Engineer may perform additional testing to determine the extent of the area to correct. The Engineer may accept the section if no more than one of the five most recent density tests is below the specified density and the failing test is no more than 3 pcf below the specified density.

- 4.3.3. **Miscellaneous and Small Areas.** Miscellaneous areas are those that typically involve handwork or discontinuous paving operations, such as temporary detours, driveways, mailbox turnouts, crossovers, gores, spot level-up areas, and other similar areas. Miscellaneous and small areas are not subject to density testing but may be tested as directed.
- 4.4. **Finishing.** After completing compaction, clip, skin, or tight-blade the surface using a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of it at an approved location. Seal the clipped surface immediately by rolling using a pneumatic tire roller until a smooth surface is attained. Add small increments of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines, and grades as shown on the plans or as directed.
- Correct grade deviations greater than 1/4 in. in 16 ft. measured longitudinally. Correct grade deviations greater than 1/4 in. over the entire width of the cross-section in areas where surfacing is to be placed. Correct by loosening and adding or removing material. Reshape and recompact in accordance with Section 247.4.3., "Compaction."
- 4.5. **Curing.** Cure the finished section until the moisture content is at least 2 percentage points below optimum or as directed before applying the next successive course or prime coat.
- 4.6. **Ride Quality.** Measurement of ride quality only applies to the final travel lanes that receive a one- or two-course surface treatment for the final riding surface, unless otherwise shown on the plans. Measure the ride quality of the base course either before or after the application of the prime coat, as directed, and before placement of the surface treatment. Use a certified profiler operator listed on the Department's MPL. When requested, furnish the Engineer with documentation for the person certified to operate the profiler.
- Provide all profile data to the Engineer in electronic data files within 3 days of measuring the ride quality using the format specified in [Tex-1001-S](#). The Engineer will use Department software to evaluate longitudinal profiles to determine areas requiring corrective action. Correct 0.1-mi. sections with an average international roughness index (IRI) value greater than 100 in. per mile to an IRI value of 100 in. per mile or less, unless otherwise shown on the plans. Reprofile and correct sections that fail to maintain ride quality before the placement of the surface treatment, as directed. Unless ride deterioration is due to environmental impact, traffic, or other incidents outside the Contractor's control, perform this work at no additional expense to the Department, as approved.

5. MEASUREMENT

Flexible base will be measured as follows.

- **Flexible Base (Complete in Place).** The ton, square yard, or any cubic yard method.
- **Flexible Base (Roadway Delivery).** The ton or any cubic yard method.
- **Flexible Base (Stockpile Delivery).** The ton, cubic yard in vehicle, or cubic yard in stockpile.

Measurement by the cubic yard in final position and square yard is a plans quantity measurement. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Measurement is further defined for payment as follows.

- 5.1. **Cubic Yard in Vehicle.** By the cubic yard in vehicles of uniform capacity at the point of delivery.

- 5.2. **Cubic Yard in Stockpile.** By the cubic yard in the final stockpile position, by the method of average end areas, or as shown on the plans.
- 5.3. **Cubic Yard in Final Position.** By the cubic yard in the completed and accepted final position. The volume of base course is computed in place by the method of average end areas between the original subgrade or existing base surfaces and the lines, grades, and slopes of the accepted base course, or as shown on the plans.
- 5.4. **Square Yard.** By the square yard of surface area in the completed and accepted final position. The surface area of the base course is based on the width of flexible base, or as shown on the plans.
- 5.5. **Ton.** By the ton of dry weight in vehicles as delivered. The dry weight is determined by deducting the weight of the moisture in the material at the time of weighing from the gross weight of the material. The Engineer will determine the moisture content in the material in accordance with [Tex-103-E](#) from samples taken at the time of weighing.

When material is measured in trucks, the weight of the material will be determined on certified scales, or the Contractor must provide a set of standard platform truck scales at an approved location. Scales must meet the requirements of Item 520, "Weighing and Measuring Equipment."

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 price bid for the types of work described below. No additional payment will be made for thickness or width exceeding that shown on the typical section or provided on the plans for cubic yard in the final position or square yard measurement.

Sprinkling and rolling, except proof rolling, will not be paid for directly, but will be subsidiary to this Item unless otherwise shown on the plans. When proof rolling is shown on the plans or directed, it will be paid for in accordance with Item 216.

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in conformance with pertinent Items or in accordance with Article 4.4., "Changes in the Work."

- 6.1. **Flexible Base (Complete in Place).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. For square yard measurement, a depth will be specified. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, spreading, blading, mixing, shaping, placing, compacting, reworking, finishing, correcting locations where thickness is deficient, curing, furnishing scales and labor for weighing and measuring, equipment, labor, tools, and incidentals.
- 6.2. **Flexible Base (Roadway Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, furnishing scales and labor for weighing and measuring, equipment, labor, tools, and incidentals.
- 6.3. **Flexible Base (Stockpile Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle" or "In Stockpile" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing and disposing of materials, preparing the stockpile area, temporary or permanent stockpiling, assistance provided in stockpile sampling and operations to level

stockpiles for measurement, loading, hauling, delivery of materials to the stockpile, furnishing scales and labor for weighing and measuring, equipment, labor, tools, and incidentals.

Item 310

Prime Coat



1. DESCRIPTION

Prepare and treat existing or newly constructed surface with an asphalt binder or other specialty prime coat binder material. Apply blotter material as required.

2. MATERIALS

- 2.1. **Binder.** Use material of the type and grade shown on the plans in accordance with Item 300, "Asphalts, Oils, and Emulsions."
- 2.2. **Blotter.** Use either base course sweepings obtained from cleaning the base or native sand as blotter materials unless otherwise shown on the plans or approved.

3. EQUIPMENT

Provide applicable equipment in accordance with Article 316.3., "Equipment."

4. CONSTRUCTION

- 4.1. **General.** Apply the mixture when the air temperature is at or above 60°F, or above 50°F and rising. Measure the air temperature in the shade away from artificial heat. The Engineer will determine when weather conditions are suitable for application.
- Do not permit traffic, hauling, or placement of subsequent courses over freshly constructed prime coats. Maintain the primed surface until placement of subsequent courses or acceptance of the work.
- 4.2. **Surface Preparation.** Prepare the surface by sweeping or other approved methods. Lightly sprinkle the surface with water before applying bituminous material, when directed, to control dust and ensure absorption.
- 4.3. **Application.**
- 4.3.1. **Binder.** The Engineer will select the application temperature within the limits recommended in Item 300, or by the material manufacturer. Apply material within 15°F of the selected temperature, but do not exceed the maximum allowable temperature.
- Distribute the material smoothly and evenly at the rate selected by the Engineer. Roll the freshly applied prime coat using a pneumatic-tire roller to ensure penetration when directed.
- 4.3.2. **Blotter.** Spread blotter material before allowing traffic to use a primed surface. Apply blotter material to primed surface at the specified rate when "Prime Coat and Blotter" is shown on the plans as a bid item or as directed. Apply blotter to spot locations when "Prime Coat" is shown on the plans as a bid item or as directed to accommodate traffic movement through the work area. Remove blotter material before placing the surface. Dispose of blotter material in conformance with applicable state and federal requirements.

5. MEASUREMENT

This Item will be measured by the gallon of binder placed and accepted.

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 price bid for "Prime Coat" or "Prime Coat and Blotter" of the type and grade of binder specified. This price is full compensation for cleaning and sprinkling the area to be primed; materials, including blotter material; and rolling, equipment, labor, tools, and incidentals.

Item 316

Seal Coat



1.	DESCRIPTION <p>Construct a surface treatment consisting of one or more applications of a single layer of asphalt material covered with a single layer of aggregate.</p>
2.	MATERIALS <p>Furnish materials of the type and grade shown on the plans in conformance with the following.</p> <p>2.1. Asphalt. Furnish asphalt materials meeting the requirements of Item 300, "Asphalts, Oils, and Emulsions."</p> <p>Furnish Type II or Type III asphalt-rubber (A-R) binder in accordance with Section 300.2.10., "Asphalt-Rubber Binders," as shown on the plans. Furnish a blend design for approval. Include in the design, at a minimum, the following:</p> <ul style="list-style-type: none"> ■ manufacturer and grade of asphalt cement; ■ manufacturer and grade of crumb rubber; ■ manufacturer, type, and percentage of extender oil, if used; ■ test report pertinent to crumb rubber gradation in accordance with Tex-200-F, Part I; ■ design percentage of crumb rubber versus asphalt content; ■ blending temperature; and ■ test results pertinent to the properties at reaction times of 60, 90, 240, 360, and 1,440 min. in accordance with Section 300.2.10., "Asphalt-Rubber Binders." <p>Furnish a new A-R blend design if the grade or source for any of the components changes.</p> <p>If a tack coat is specified when using A-R, unless otherwise shown on the plans or approved, furnish CSS-1H, SS-1H, or a performance-grade (PG) binder with a minimum high-temperature grade of PG 58 for tack coat binder. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use. If required, verify that emulsified asphalt proposed for use meets the minimum residual asphalt percentage specified in Item 300.</p> <p>2.2. Aggregate. Furnish aggregate meeting Item 302, "Aggregates for Surface Treatments," of the type and grade shown on the plans. Unless otherwise shown on the plans, furnish aggregate with a minimum Surface Aggregate Classification B.</p> <p>2.3. Materials Selections. Furnish asphalt and aggregate as shown on the plans.</p>
3.	EQUIPMENT <p>3.1. Distributor. Furnish a distributor that will apply the asphalt material uniformly at the specified rate or as directed.</p> <p>3.1.1. Transverse Variable Rate. When a transverse variable rate is shown on the plans, ensure that the nozzles outside the wheel paths will output a predetermined percentage more asphalt material by volume than the nozzles over the wheel paths. Use a dual spray bar distributor as desired to provide for a transverse variable rate.</p>

- 3.1.2. **Agitation for Asphalt-Rubber.** If using A-R, furnish a distributor capable of keeping the rubber in uniform suspension and adequately mixing the asphalt, rubber, and any additional additives.
- 3.1.3. **Calibration.**
- 3.1.3.1. **Transverse Distribution.** Furnish a distributor test report, less than 1 yr. old, when tested in accordance with [Tex-922-K](#), Part III. The Department reserves the right to witness the calibration testing. Notify the Engineer 3 days before calibration testing.
- Include the following documentation in the test report:
- the serial number of the distributor,
 - a method that identifies the actual nozzle set used in the test, and
 - the fan width of the nozzle set at a 12-in. bar height.
- When a transverse variable rate is required, and a single spray bar is to be used, perform the test using the type and grade of asphalt material to be used on the project. The Engineer may verify the transverse rate and distribution at any time. If verification does not meet the requirements, correct deficiencies and furnish a new test report.
- 3.1.3.2. **Tank Volume.** Furnish a volumetric calibration and strap stick for the distributor tank in accordance with [Tex-922-K](#), Part I.
- Provide documentation of distributor calibration performed no more than 5 yr. before the date first used on the project. The Engineer may verify calibration accuracy in accordance with [Tex-922-K](#), Part II.
- 3.1.4. **Computerized Distributor.** When paying for asphalt material by weight, the Engineer may allow use of the computerized distributor display to verify application rates. Verify application rate accuracy at a frequency acceptable to the Engineer.
- 3.2. **Aggregate Spreader.** Use a continuous-feed, self-propelled spreader to apply aggregate uniformly at the specified rate or as directed. If racked-in aggregate is shown on the plans, furnish a second aggregate spreader for the racked-in aggregate to apply aggregate uniformly at the specified rate.
- 3.3. **Rollers.** Unless otherwise shown on the plans, furnish light pneumatic-tire rollers in accordance with Item 210, "Rolling."
- 3.4. **Broom.** Furnish rotary, self-propelled brooms.
- 3.5. **Asphalt Storage and Handling Equipment.** When the plan or the Engineer allows storage tanks, furnish a thermometer in each tank to indicate the asphalt temperature continuously. Keep equipment clean and free of leaks. Keep asphalt material free of contamination.
- 3.6. **Aggregate Haul Trucks.** Unless otherwise approved, use trucks of uniform capacity to deliver the aggregate. Provide documentation showing measurements and calculation in cubic yards. Clearly mark the calibrated level. Truck size may be limited when shown on the plans.
- 3.7. **Digital Distance-Measuring Instrument.** Furnish a vehicle with a calibrated digital distance-measuring instrument accurate to ± 6 ft. per mile.

4. CONSTRUCTION

- 4.1. **General.** Comply with the seal coat season as shown on the plans. Asphalt and aggregate rates shown on the plans are for estimating purposes only. Adjust the rates for existing conditions as directed.

- 4.2. **Temporary Aggregate Stockpiles.** The Engineer will approve the location of temporary aggregate stockpiles on the right of way before delivery. Place stockpiles in a manner that will not:
- obstruct traffic or sight distance,
 - interfere with the access from abutting property, or
 - interfere with roadway drainage.
- Locate stockpiles at least 30 ft. from roadway when possible. Sign and barricade as shown on the plans.
- 4.3. **Aggregate Furnished by the Department.** When shown on the plans, the Department will furnish aggregate to the Contractor without cost. Stockpile locations are shown on the plans.
- 4.4. **Adverse Weather Conditions.** Do not place surface treatments when, in the Engineer's opinion, general weather conditions are unsuitable. Meet the requirements for air and surface temperature shown below.
- 4.4.1. **Standard Temperature Limitations.** Apply seal coat when air temperature is above 50°F and rising. Do not apply seal coat when air temperature is 60°F and falling. In all cases, do not apply seal coat when surface temperature is below 60°F.
- 4.4.2. **Polymer-Modified Asphalt Cement Temperature Limitations.** When using materials described in Section 300.2.2., "Polymer-Modified Asphalt Cement," apply seal coat when air temperature is above 70°F and rising. Do not apply seal coat when air temperature is 80°F and falling. In all cases, do not apply seal coat when surface temperature is below 70°F.
- 4.4.3. **Asphalt-Rubber Temperature Limitations.** Do not place hot A-R seal coat when, in the Engineer's opinion, general weather conditions are unsuitable. Apply seal coat when the air temperature is 80°F and above, or above 70°F and rising. In all cases, do not apply seal coat when surface temperature is below 70°F.
- 4.4.4. **Cool Weather Night Air Temperature.** The Engineer reserves the right to review the National Oceanic and Atmospheric Administration (NOAA) weather forecast and determine whether the nightly air temperature is suitable for asphalt placement to prevent aggregate loss.
- 4.4.5. **Cold Weather Application.** When asphalt application is allowed outside the above temperature restrictions, the Engineer will approve the binder grade and the air and surface temperatures for asphalt material application. Apply seal coat at air and surface temperatures as directed.
- 4.5. **Mixing Hot A-R Binder.** If using A-R, mix in accordance with the approved blend design required in Section 316.2.1., "Asphalt."
- At the end of each shift, provide the Engineer with production documentation that includes the following:
- amount and temperature of asphalt cement before addition of rubber,
 - amount of rubber and any extender added,
 - viscosity of each hot A-R batch just before roadway placement, and
 - time of the rubber additions and viscosity tests.
- 4.6. **Surface Preparation.** Remove existing raised pavement markers. Repair any damage incurred by removal as directed. Remove dirt, dust, or other harmful material before sealing. When shown on the plans, remove vegetation and blade pavement edges. When directed, apply a tack coat before applying the hot A-R treatment on an existing wearing surface in accordance with Section 341.4.7.2., "Tack Coat."

4.7. Rock Land and Shot.

4.7.1. Definitions.

- **Rock Land.** The area covered at the aggregate rate directed with one truckload of aggregate.
- **Shot.** The area covered by one distributor load of asphalt material.

4.7.2. **Setting Lengths.** Calculate the lengths of both rock land and shot. Adjust shot length to be an even multiple of the rock land. Verify that the distributor has enough asphalt material to complete the entire shot length. Mark shot length before applying asphalt. When directed, mark length of each rock land to verify the aggregate rate.

4.8. Asphalt Placement.

4.8.1. **General.** The maximum shot width is the width of the current transverse distribution test required under Section 316.3.1.3.1., "Transverse Distribution," or the width of the aggregate spreader box, whichever is less. Adjust the shot width so operations do not encroach on traffic or interfere with the traffic control plan, as directed. Use paper or other approved material at the beginning and end of each shot to construct a straight transverse joint and to prevent overlapping of the asphalt. Unless otherwise approved, match longitudinal joints with the lane lines. The Engineer may require a string line if necessary to keep joints straight with no overlapping. Use enough pressure to flare the nozzles fully.

Select an application temperature, as approved, in accordance with Item 300. Uniformly apply the asphalt material at the rate directed, within 15°F of the approved temperature, and not above the maximum allowable temperature.

4.8.2. **Limitations.** Do not apply asphalt to the roadway until:

- traffic control methods and devices are in place as shown on the plans or as directed,
- the loaded aggregate spreader is in position and ready to begin,
- haul trucks are loaded with enough aggregate to cover the shot area and are in place behind the spreader box, and
- rollers are in place behind the haul trucks.

4.8.3. **Nonuniform Application.** Stop application if it is not uniform due to streaking, ridging, puddling, or flowing off the roadway surface. Verify equipment condition, operating procedures, application temperature, and material properties. Determine and correct the cause of nonuniform application. If the cause is high- or low-emulsion viscosity, replace emulsion with material that corrects the problem.

4.8.4. **Test Strips.** The Engineer may stop asphalt application and require construction of test strips at the Contractor's expense if any of the following occurs:

- nonuniformity of application continues after corrective action;
- on three consecutive shots, application rate differs by more than 0.03 gal. per square yard from the rate directed; or
- any shot differs by more than 0.05 gal. per square yard from the rate directed.

The Engineer will approve the test strip location. The Engineer may require additional test strips until surface treatment application meets specification requirements.

4.8.5. **Sampling.** Collect all samples in accordance with [Tex-500-C](#) from the distributor and with witness by the Engineer.

At least once per project, collect split samples of each binder grade and source used. The Engineer will submit one split sample to the Materials and Tests Division (MTD) for testing and retain the other split sample.

In addition, collect one sample of each binder grade and source used on the project for each production day. The Engineer will retain these samples.

The Engineer will keep all retained samples for 1 yr. for hot-applied binders and cutback asphalts, or for 2 mo. for emulsified asphalts. The Engineer may submit retained samples to MTD for testing as necessary or as requested by MTD.

The Department will furnish sampling containers in accordance with [Tex-500-C](#).

- 4.9. **Aggregate Placement.** As soon as possible, apply aggregate uniformly at the rate directed without causing the rock to roll over.
- 4.9.1. **Nonuniform Application.** Stop application if it is not uniform in the transverse direction. Verify equipment condition, operating procedures, and transverse application rate. The transverse application rate should be within 1 lb. Determine and correct the cause of nonuniform application.
- 4.10. **Rolling.** Start rolling operation on each shot as soon as aggregate is applied. Use enough rollers to cover the entire mat width in one pass; i.e., one direction. Roll in a staggered pattern. Unless otherwise shown on the plans, make at least:
 - five passes or
 - three passes when the asphalt material is an emulsion.

If rollers are unable to keep up with the spreader box, stop application until rollers have caught up, or furnish additional rollers. Keep roller tires asphalt-free.
- 4.11. **Patching.** Before rolling, repair spots where coverage is incomplete. Repair can be made by hand spotting or other approved method. When necessary, apply additional asphalt material to embed aggregate.
- 4.12. **Racked-In Aggregate.** If specified on the plans, apply racked-in aggregate after patching, uniformly at the rate directed. The racked-in aggregate must be applied before opening the roadway or intersection to traffic.
- 4.13. **Brooming.** After rolling, sweep as soon as aggregate has sufficiently bonded to remove excess. In areas of racked-in aggregate, sweep as directed.
- 4.14. **Final Acceptance.** Maintain seal coat until the Engineer accepts the work. Repair any surface failures. Before final project acceptance, remove all temporary stockpiles and restore the area to the original contour and grade.

5. MEASUREMENT

- 5.1. **Asphalt Material.** Unless otherwise shown on the plans, asphalt material will be measured by one of the following methods.
 - 5.1.1. **Volume.** Asphalt material, including all components, will be measured at the applied temperature by strapping the tank before and after road application. The distributor calibrated strap stick will be used for measuring the asphalt level in the distributor asphalt tank. The certified tank chart will be used to determine the beginning gallons and the final gallons in the distributor tank. The quantity to be measured for payment will be the difference between the beginning gallons and the final gallons.
 - 5.1.2. **Weight.** Asphalt material will be measured in tons using certified scales meeting the requirements of Item 520, "Weighing and Measuring Equipment," unless otherwise approved. The transporting truck must have a seal attached to the draining device and other openings. Random checking on public scales at the Contractor's expense may be required to verify weight accuracy.

Upon work completion or temporary suspension, any remaining asphalt material will be weighed by a certified public weigher or measured by volume in a calibrated distributor or tank, and the quantity converted to tons at the measured temperature. The quantity to be measured will be the number of tons received minus the number of tons remaining after all directed work is complete and minus the amount used for other items.

- 5.1.3. **Quantity Adjustments.** When shown on the plans, the measured quantity will be adjusted to compensate for variation in required application or residual rates for different types of asphalt.
- 5.1.4. **Aggregate.** Unless otherwise shown on the plans, aggregate will be measured by the cubic yard in the trucks as applied on the road. Strike off the loaded aggregate for accurate measurement when directed.
- 5.2. **Loading, Hauling, and Distributing Aggregate.** When the Department furnishes the aggregate, the loading, hauling, and distributing will be measured by the cubic yard in the trucks as applied on the road.

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 price bid for "Asphalt"; "Aggregate"; and "Loading, Hauling, and Distributing Aggregate" of the types and grades shown on the plans. These prices are full compensation for surface preparation; furnishing, preparing, hauling, and placing materials; removing existing pavement markers and excess aggregate; rolling; cleaning up stockpiles; and equipment, labor, tools, and incidentals.

Hauling of any aggregate to consolidate stockpiles at the end of the project when directed by the Engineer will be paid by force account work.

Item 432

Riprap



1. DESCRIPTION

Furnish and place concrete, stone, cement-stabilized, or special riprap.

2. MATERIALS

Furnish materials in accordance with the following.

- Item 420, "Concrete Substructures"
- Item 421, "Hydraulic Cement Concrete"
- Item 431, "Pneumatically Placed Concrete"
- Item 440, "Reinforcement for Concrete"
- [DMS-6200](#), "Filter Fabric"

2.1. **Concrete Riprap.** Use Class B concrete unless otherwise shown on the plans.

2.2. **Pneumatically Placed Concrete Riprap.** Use Class II concrete that meets the requirements of Item 431, unless otherwise shown on the plans.

2.3. **Stone Riprap.** Use durable natural stone with a bulk specific gravity of at least 2.50 as determined in accordance with [Tex-403-A](#), unless otherwise shown on the plans. Provide stone that, when tested in accordance with [Tex-411-A](#), has weight loss of no more than 18% after five cycles of magnesium sulfate solution.

Perform a size verification test on the first 5,000 sq. yd. of finished riprap stone for all types of stone riprap at a location determined by the Engineer. Test the riprap stone in accordance with ASTM D5519, Test Method D, unless otherwise directed. Additional tests may be required. Do not place additional riprap until the initial 5,000 sq. yd. of riprap has been approved.

Provide grout or mortar in accordance with Item 421 when specified. Provide grout with a consistency that will flow into and fill all voids.

Provide filter fabric in accordance with [DMS-6200](#). Provide Type 2 filter fabric for protection stone riprap, unless otherwise shown on the plans. Provide Type 2 filter fabric for Type R, F, or Common stone riprap when shown on the plans.

2.3.1. **Type R.** Use stones between 50 and 250 lb., with at least 50% of the stones heavier than 100 lb.

2.3.2. **Type F.** Use stones between 50 and 250 lb., with at least 40% of the stones heavier than 100 lb. Use stones with at least one broad flat surface.

2.3.3. **Common.** Use stones between 50 and 250 lb. Use stones that are at least 3 in. in their least dimension. Use stones that are at least twice as wide as they are thick. When shown on the plans or approved, material may consist of broken concrete removed under the Contract or from other approved sources. Cut exposed reinforcement flush with all surfaces before placement of each piece of broken concrete.

2.3.4. **Protection.** Use boulders or quarried rock that meets the gradation requirements shown in Table 1. Both the width and the thickness of each piece of riprap must be at least 1/3 of the length. When shown on the plans or as approved, material may consist of broken concrete removed under the Contract or from other approved

sources. Cut exposed reinforcement flush with all surfaces before placement of each piece of broken concrete. Determine gradation of the finished, in-place, riprap stone under the direct supervision of the Engineer in accordance with ASTM D5519, Test Method D, unless otherwise directed.

Table 1
In-Place Protection Riprap Gradation Requirements

Nominal Size	Maximum Weight (lb.)	90% Weight ¹ (lb.)	50% Weight ² (lb.)	Minimum 8% Weight ³ (lb.)
12 in.	200	80–180	30–75	3
15 in.	320	170–300	60–165	20
18 in.	530	290–475	105–220	22
21 in.	800	460–720	175–300	25
24 in.	1,000	550–850	200–325	30
30 in.	2,600	1,150–2,250	400–900	40
36 in.	4,400	2,200–3,900	800–1,700	140

1. The 90% weight is the stone weight heavier than 90% of the individual riprap stones, and lighter than 10% of individual riprap stones.
2. The 50% weight is the stone weight heavier than 50% of individual riprap stones, and lighter than 50% of individual riprap stones.
3. The 8% weight is the stone weight heavier than 8% of individual riprap stones, and lighter than 92% of individual riprap stones.

The Engineer may require in-place verification of the stone gradation. Determine the in-place gradation of the riprap stone by taking linear transects along the riprap and measuring the intermediate axis of the stone at select intervals. Place a tape measure along the riprap and determine the intermediate axis size of the stone at 2-ft. intervals. Measure at least 100 stones, either in a single transect or in multiple transects, then follow ASTM D5519, Test Method D to determine the gradation, unless otherwise directed. Table 2 is a guide for comparing the stone size in inches to the stone weight shown in Table 1.

Table 2
Protection Riprap Stone Size¹

Nominal Size	Dmax (in.)	D90 (in.)	D50 (in.)	D8 (in.)
12 in.	13.76	10.14–13.29	7.31–9.92	3.39
15 in.	16.10	13.04–15.75	9.21–12.91	6.39
18 in.	19.04	15.58–18.36	11.10–14.21	6.59
21 in.	21.85	18.17–21.09	13.16–15.75	6.88
24 in.	23.53	19.28–22.29	13.76–16.18	7.31
30 in.	32.36	24.65–30.84	17.34–22.72	8.05
36 in.	38.56	30.61–37.04	21.85–28.09	12.22

1. Based on a specific gravity of 2.5 and using the following equation for the intermediate axis diameter: $D = (12 \text{ in./ft.}) * \{(W)/(Gs * 62.4 * 0.85)\}^{1/3}$

where:

D = intermediate axis diameter (in.)

W = weight of stone (lb.)

Gs = Specific gravity of stone

Note—If the specific gravity of the stone is greater than 2.5, then the above equation can be used to determine the appropriate size using the actual specific gravity.

When bedding is required, provide bedding stone that, in place, meets the gradation requirements shown in Table 3 or as otherwise shown on the plans. If the nominal size of the protection riprap is less than or equal to 30 in., verify the gradation of the bedding material in accordance with [Tex-401-A](#) unless otherwise directed. If the nominal size of the protection riprap is equal to 36 in., verify the gradation of the bedding material in accordance with ASTM D5519, Test Method D, unless otherwise directed.

Table 3
Protection Riprap Bedding Material Gradation Requirements

Nominal Size <36 in.		Nominal Size = 36 in.	
Sieve Size (Sq. Mesh)	% by Weight Passing	Sieve Size (Sq. Mesh)	% by Weight Passing
3"	100	6"	100
1-1/2"	50–80	4"	35–75
3/4"	20–60	3"	45–60
#4	0–15	2"	0–15
#10	0–5	—	—

- 2.4. **Cement-Stabilized Riprap.** Provide aggregate that meets the requirements of Item 247, "Flexible Base," for the type and grade shown on the plans. Use cement-stabilized riprap with 7% hydraulic cement by dry weight of the aggregate unless otherwise directed.

- 2.5. **Special Riprap.** Furnish materials for special riprap as shown on the plans.

3. CONSTRUCTION

Dress slopes and protected areas to the line and grade shown on the plans before the placement of riprap. Place riprap and toe walls as shown on the plans or as directed.

- 3.1. **Concrete Riprap.** Reinforce concrete riprap with 6 × 6 – W2.9 × W2.9 welded wire fabric or with No. 3 or No. 4 reinforcing bars spaced at a maximum of 18 in. in each direction unless otherwise shown on the plans. Alternative styles of welded wire fabric that provide at least 0.058 sq. in. of steel per foot in both directions may be used if approved. A combination of welded wire fabric and reinforcing bars may be provided when both are permitted. Provide a minimum 6-in. lap at all splices. Provide horizontal cover of at least 1 in. and no more than 3 in. at the edge of the riprap. Place the first parallel bar no more than 6 in. from the edge of concrete. Use approved supports to hold the reinforcement approximately equidistant from the top and bottom surface of the slab. Adjust reinforcement during concrete placement to maintain correct position.

Sprinkle or sprinkle and consolidate the subgrade before the concrete is placed as directed. All surfaces must be moist when concrete is placed.

Compact and shape the concrete once it has been placed to conform to the dimensions shown on the plans. Finish the surface with a wood float after it has set sufficiently to avoid slumping to secure a smooth surface or broom finish as approved.

Cure the riprap immediately after the finishing operation in accordance with Item 420.

- 3.2. **Stone Riprap.** Provide the following types of stone riprap when shown on the plans.

- **Dry Riprap.** Stone riprap with voids filled with only spalls or small stones.
- **Grouted Riprap.** Type R, F, or Common stone riprap with voids grouted after all the stones are in place.
- **Mortared Riprap.** Type F stone riprap laid and mortared as each stone is placed.

Use spalls and small stones lighter than 25 lb. to fill open joints and voids in stone riprap, and place to a tight fit.

Place mortar or grout only when the air temperature is above 35°F. Protect work from rapid drying for at least 3 days after placement.

For slope or wave protection, if filter fabric is required, place filter fabric with its long axis running up and down the slope unless otherwise approved. For stream bank protection, if filter fabric is required, place the filter fabric with its long axis parallel to the centerline of the channel unless otherwise approved. Overlap the uphill or upstream sheet over the downhill or downstream sheet. For above water applications, ensure

adjacent sheets of filter fabric have a minimum overlap of 2 ft. in each direction. Secure filter fabric in place with nails or pins. Use 12-in. long, 3/16-in. diameter nails with 1.5-in. washers, or U-shaped steel pins with each leg at least 9 in. long. Space nails or pins at a maximum of 10 ft. in each direction and 5 ft. along the seams. Along the seams, place nails or pins through both strips of filter fabric at approximately the midpoint of the overlap. Place additional nails or pins as necessary to hold the filter fabric in position. Alternative anchorage and spacing may be used when approved. Keep the fabric material free of tension, stress, folds, wrinkles, or creases.

Methods for underwater filter placement must be approved before installation. For underwater placement, filter fabric should be unrolled in the direction of flow, overlapped at least 3 ft., and secured with sandbags, rocks, nails, or pins to prevent distortion. To prevent segregation and transport, underwater installation of a granular filter must be by clamshell bucket or tremie, with the granular material released on or very near the bed, unless otherwise approved. Underwater placement of a granular filter is permitted only if the water velocity is less than 5 ft. per second unless otherwise approved.

Any defects, tears, holes, flaws, or damage to filter fabric may be cause for rejection. Repair torn or punctured filter fabric by placing an additional layer of filter fabric over the damaged area, ensuring a minimum overlap of 3 ft. beyond the damaged area in all directions, and securing the filter fabric in place with pins or nails. Store filter fabric out of direct sunlight and cover the filter fabric as soon as possible after placement, but within 3 days.

- 3.2.1. **Type R.** Construct riprap as shown in Figure 1 on the *Stone Riprap Standard* and as shown on the plans. Place stones in a single layer with close joints so most of their weight is carried by the earth and not the adjacent stones. Place the upright axis of the stones at an angle of approximately 90° to the embankment slope. Place each course from the bottom of the embankment upward with the larger stones in the lower courses.

Fill open joints between stones with spalls. Place stones to create a uniform finished top surface. Do not exceed a 6-in. variation between the tops of adjacent stones. Replace, embed deeper, or chip away stones that project more than the allowable amount above the finished surface.

Prevent earth, sand, or foreign material from filling the spaces between the stones when the plans require Type R stone riprap to be grouted. Wet the stones thoroughly after they are in place, fill the spaces between the stones with grout, and pack. Sweep the surface of the riprap using a stiff broom after grouting.

- 3.2.2. **Type F.**

- 3.2.2.1. **Dry Placement.** Construct riprap as shown in Figure 2 on the *Stone Riprap Standard*. Set the flat surface on a prepared horizontal earth bed and overlap the underlying course to secure a lapped surface. Place the large stones first, roughly arranged in close contact. Fill the spaces between the large stones with suitably sized stones placed to leave the surface evenly stepped and conforming to the contour required. Place stone to drain water down the face of the slope.

- 3.2.2.2. **Grouting.** Construct riprap as shown in Figure 3 on the *Stone Riprap Standard*. Size, shape, and lay large flat-surfaced stones to produce an even surface with minimal voids. Place stones with the flat surface facing upward parallel to the slope. Place the largest stones near the base of the slope. Fill spaces between the larger stones with stones of suitable size, leaving the surface smooth, tight, and conforming to the contour required. Place the stones to create a plane surface with a variation no more than 6 in. in 10 ft. from true plane. Provide the same degree of accuracy for warped and curved surfaces. Prevent earth, sand, or foreign material from filling the spaces between the stones. Wet the stones thoroughly after they are in place, fill the spaces between them with grout, and pack. Sweep the surface using a stiff broom after grouting.

- 3.2.2.3. **Mortaring.** Construct riprap as shown in Figure 2 on the *Stone Riprap Standard*. Lap courses as described for dry placement. Wet the stones thoroughly before placing mortar. Bed the larger stones in fresh mortar as they are being placed and shove adjacent stones into contact with one another. Spread excess mortar forced out during placement of the stones uniformly over them to fill all voids completely. Point up all joints roughly either with flush joints or shallow, smooth-raked joints as directed.

- 3.2.3. **Common.** Construct riprap as shown in Figure 4 on the *Stone Riprap Standard*. Place stones on a bed excavated for the base course. Bed the base course of stone well into the ground with the edges in contact. Bed and place each succeeding course in even contact with the preceding course. Use spalls and small stones to fill any open joints and voids in the riprap. Ensure the finished surface presents an even, tight surface, true to the line and grades of the typical sections.
- Prevent earth, sand, or foreign material from filling the spaces between the stones when the plans require grouting common stone riprap. Wet the stones thoroughly after they are in place, fill the spaces between them with grout, and pack. Sweep the surface using a stiff broom after grouting.
- 3.2.4. **Protection.** Construct riprap as shown in Figure 5 on the *Stone Riprap Standard*. Place riprap stone on the slopes within the limits shown on the plans. Place stone for riprap on the filter fabric to produce a reasonably well-graded mass of riprap with the minimum practicable percentage of voids. Place riprap stone on top of the filter fabric, always starting at the bottom and working toward the top of any slope. Construct the riprap to the lines and grades shown on the plans or staked in the field. A tolerance of +6 in. and -0 in. from the slope line and grades shown on the plans is allowed in the finished surface of the riprap. Place riprap to its full thickness in a single operation. Avoid displacing the filter fabric. Ensure the entire mass of stones in its final position is free of objectionable pockets of small stones and clusters of larger stones. Do not place riprap in layers, and do not place it by dumping it into chutes, dumping it from the top of the slope, pushing it from the top of the slope, or any method likely to cause segregation of the various sizes. Obtain the desired distribution of the various sizes of stones throughout the mass by selective loading of material at the quarry or other source, or by other approved methods of placement that will produce the specified results. Rearrange individual stones using mechanical equipment or by hand if necessary to obtain a reasonably well-graded distribution of stone sizes. If required, use the bedding thickness shown on the plans and place stone for riprap on the bedding material to produce a reasonably well-graded mass of riprap with the minimum practicable percentage of voids.
- 3.3. **Pneumatically Placed Concrete Riprap, Class II.** Meet the requirements of Item 431. Provide reinforcement as shown on the plans and in accordance with Item 440. Support reinforcement with approved supports throughout placement of concrete.
- Give the surface a wood-float finish or a gun finish as directed. Cure the riprap with membrane-curing compound immediately after the finishing operation in accordance with Item 420.
- 3.4. **Cement-Stabilized Riprap.** Follow the requirements of the plans and the provisions for concrete riprap except when reinforcement is not required. The Engineer will approve the design and mixing of the cement-stabilized riprap.
- 3.5. **Special Riprap.** Construct special riprap as shown on the plans.

4. MEASUREMENT

This Item will be measured by the cubic yard of material complete in place. Volume will be computed based on the measured area in place and the thickness and toe wall width shown on the plans.

If required on the plans, the pay quantity of the bedding material for stone riprap for protection to be paid for will be measured by the cubic yard as computed from the measured area in place and the bedding thickness shown on the plans.

5. 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 price bid for "Riprap" of the type, nominal size, and void-filling technique (dry, grout, or mortar) specified, as applicable. This price is full compensation for furnishing, hauling, and placing riprap and for filter fabric, expansion joint material, concrete and reinforcing steel, grout and mortar, scales, test weights, equipment, labor, tools, and incidentals.

Payment for excavation of toe wall trenches, for all necessary excavation below natural ground or bottom of excavated channel, and for shaping of slopes for riprap will be included in the unit price bid per cubic yard of riprap.

When bedding is required for protection stone riprap, payment will be made at the unit price bid for "Bedding Material" of the thickness specified. This price is full compensation for furnishing, hauling, placing, and maintaining the stone bedding material until placement of the riprap cover is completed and accepted; excavation required for placement of bedding material; and equipment, scales, test weights, labor, tools, and incidentals. No payment will be made for excess thickness of bedding or for material required to replace embankment material lost by rain wash, wind erosion, or otherwise.

Item 460

Corrugated Metal Pipe



1. DESCRIPTION

Furnish and install corrugated metal pipes, materials for constructing corrugated metal pipe culverts, or corrugated metal storm drain mains, laterals, stubs, and inlet leads.

2. MATERIALS

- 2.1. **Fabrication.** Furnish corrugated metal pipe in accordance with Table 1.

Table 1
Specifications for Corrugated Metal Pipe

Pipe Type	AASHTO Specification
Galvanized steel and aluminized steel	M 36
Aluminized Type 2	M 36
Polymer coated	M 245
Asphalt coated	M 190
Aluminum	M 196

The pipe types and corresponding AASHTO designations are shown in Table 2.

Table 2
Corrugated Metal Pipe Types

Pipe Type	AASHTO Classification
Circular	Type I
Circular, smooth-lined	Type IA
Circular, spiral rib	Type IR
Arch	Type II
Arch, smooth-lined	Type IIA
Arch, spiral rib	Type IIR

Provide corrugated metal pipe of all types with annular corrugations, helical corrugations, or spiral ribs (corrugations) projecting outward. Provide pipe with helical end corrugations only when necessary to join new pipe to existing pipe with helical end corrugations.

Provide a minimum polymer coating thickness of 10 mils on each side for pre-coated galvanized steel pipe. Galvanized metal sheets and coils used for galvanized corrugated metal pipe may be sampled and tested in accordance with [Tex-708-I](#).

Repair damaged galvanized coating in accordance with Section 445.3.4., "Repairs." Repair damaged aluminized or polymer coating in accordance with AASHTO M 36 and AASHTO M 245, respectively.

- 2.2. **Protective Coating.** Furnish bituminous coating, when required, that meets AASHTO M 190, that tightly adheres to the metal, does not chip off in handling, and protects the pipe from deterioration.

Coat the pipe uniformly inside and out to a minimum thickness of 0.05 in. measured on the crests of the corrugations. Coat the pipe with additional material applied to the full inner circumference to form a smooth inside lining with a minimum thickness of 1/8 in. above the crest of the corrugations when smooth lining is specified.

- 2.3. **Design.** The diameter, permissible corrugations, and required gauges for full-circle pipe must be shown. The design size and permissible corrugations for pipe arch must be shown. The required gauges of the shell and

the liner for smooth lined pipe must also be shown. Furnish the shape and minimum gauge for steel pipe arch in accordance with Tables 3, 4, 5, or 6 for the specified design size and corrugation. Use Table 7 or Table 8 for aluminum pipe arch. Refer to U.S. Standard Gauge for uncoated sheets where reference is made to gauge of metal.

Measure dimensions from the inside crests of the corrugations. A tolerance of ± 1 in. or 2% of the equivalent circular diameter, whichever is greater, is allowed for span and rise.

Table 3
Steel Pipe Arch
2-2/3 × 1/2-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
1	17	13	12	16	0.064	15
2	21	15	12	16	0.064	18
2A	23	19	12	16	0.064	21
3	28	20	12	16	0.064	24
4	35	24	12	16	0.064	30
5	42	29	12	14	0.079	36
6	49	33	12	14	0.079	42
7	57	38	12	12	0.109	48
8	64	43	12	12	0.109	54
9	71	47	12	10	0.138	60

Table 4
Steel Pipe Arch
3 × 1-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
7	53	41	12	14	0.079	48
8	60	46	12	14	0.079	54
9	66	51	12	14	0.079	60
10	73	55	12	14	0.079	66
11	81	59	12	14	0.079	72
12	87	63	12	14	0.079	78
13	95	67	12	12	0.109	84
14	103	71	18	12	0.109	90
15	112	75	18	12	0.109	96
16	117	79	18	12	0.109	102
17	128	83	24	10	0.138	108
18	137	87	24	10	0.138	114
19	142	91	24	10	0.138	120

Table 5
Steel Pipe Arch
5 × 1-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
11	81	59	12	12	0.109	72
12	87	63	12	12	0.109	78
13	95	67	12	12	0.109	84
14	103	71	18	12	0.109	90
15	112	75	18	12	0.109	96
16	117	79	18	12	0.109	102
17	128	83	24	10	0.138	108
18	137	87	24	10	0.138	114
19	142	91	24	10	0.138	120

Table 6
Steel Pipe Arch, Spiral Rib
7-1/2 × 3/4 × 3/4-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
2	20	16	12	16	0.064	18
2A	23	19	12	16	0.064	21
3	27	21	12	16	0.064	24
4	33	26	12	16	0.064	30
5	40	31	12	14	0.064	36
6	46	36	12	12	0.064	42
7	53	41	12	12	0.079	48
8	60	46	12	12	0.079	54
9	66	51	15	12	0.079	60

Table 7
Aluminum Pipe Arch
2-2/3 × 1/2-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
1	17	13	12	16	0.060	15
2	21	15	12	16	0.060	18
2A	23	19	12	16	0.060	21
3	28	20	12	14	0.075	24
4	35	24	12	14	0.075	30
5	42	29	18	12	0.105	36
6	49	33	18	12	0.105	42
7	57	38	18	10	0.135	48
8	64	43	18	10	0.135	54
9	71	47	18	8	0.164	60

Table 8
Aluminum Pipe Arch, Spiral Rib
7-1/2 × 3/4 × 3/4-in. Corrugations

Design Size	Span (in.)	Rise (in.)	Min Cover (in.)	Min Gauge Required	Coated Thickness (in.)	Equivalent Diameter Full-Circle Pipe (in.)
2	20	16	12	16	0.064	18
2A	23	19	12	16	0.064	21
3	27	21	15	16	0.064	24
4	33	26	18	16	0.064	30
5	40	31	18	14	0.075	36
6	46	36	18	12	0.105	42
7	53	41	21	12	0.105	48
8	60	46	18	10	0.135	54
9	66	51	21	10	0.135	60

- 2.4. **Coupling Bands.** Furnish coupling bands and other hardware for galvanized or aluminized steel pipe in accordance with AASHTO M 36 and AASHTO M 196 for aluminum pipe. Use coupling bands that are no more than three nominal sheet thicknesses lighter than the thickness of the pipe to be connected or no lighter than 0.052 in. for steel or 0.048 in. for aluminum. Provide coupling bands made of the same base metal and coating as the pipe.

3. CONSTRUCTION

- 3.1. **Designation of Type.** The types of pipes will be shown on the plans by the following descriptions:
- Pipe type: Corrugated metal pipe (CMP), corrugated metal pipe arch (CMP ARCH), spiral rib corrugated metal pipe (SRCMP), or spiral rib corrugated metal pipe arch (SRCMP ARCH);
 - Type of material: Galvanized steel, aluminum-coated (Type 2), or aluminum;
 - Pipe coating: Bituminous coated or polymer coated;
 - Special requirements: Paved invert or smooth lining; and
 - Pipe size: Diameter or design number.

Furnish any of the material types specified above when pipe is designated as "Corrugated Metal Pipe" without a type of material or pipe coating designation.

- 3.2. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures," except where jacking, boring, or tunneling methods are shown on the plans or permitted. Jack, bore, or tunnel in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box."

Provide uniform backfill material and uniformly compacted density throughout the length of the structure so equal pressure is provided. Allow no heavy earth-moving equipment over the structure until at least 4 ft. of compacted fill (permanent or temporary) has been placed over the top of the structure, unless otherwise shown on the plans or permitted in writing. Inspect the inside periphery of the structure for local or unequal deformation caused by improper construction methods before adding each new layer of loose backfill material. Continue inspections until at least 24 in. of cover is obtained. Evidence of such deformation will be reason for corrective measures as directed. Remove and replace pipe damaged by the Contractor at no additional cost to the Department.

- 3.3. **Laying Pipe.** Lay pipes on the bedding from the outlet end and join the separate sections firmly together with outside laps of annular joints pointing upstream and longitudinal laps on the sides unless otherwise authorized. Coat any metal in joints not protected by galvanizing or aluminizing with a suitable asphalt paint. Lower sections of pipe into the trench without damaging the pipe or disturbing the bedding and the sides of the trench. Remove and re-lay, without extra compensation, pipe that is not in alignment or shows excessive settlement after laying.

Lay multiple installations of corrugated metal pipe and pipe arches with the centerlines of individual barrels parallel. Maintain the clear distances between outer surfaces of adjacent pipes shown in Table 9, unless otherwise shown on the plans.

Table 9
Required Pipe Clear Distances

Diameter Full-Circle Pipe (in.)	Pipe Arch Design Size	Clear Distance Between Pipes (Full-Circle Pipe and Pipe Arch)
18	2	1 ft. 2 in.
21	2A	1 ft. 3 in.
24	3	1 ft. 5 in.
30	4	1 ft. 8 in.
36	5	1 ft. 11 in.
42	6	2 ft. 2 in.
48	7	2 ft. 5 in.
54	8	2 ft. 10 in.
60 to 84	9	3 ft. 2 in.
90 to 120	10 and above	3 ft. 5 in.

- 3.4. **Jointing.** Provide field joints that maintain pipe alignment during construction and prevent infiltration of side material during the life of the installation. Provide one of the following jointing systems unless otherwise shown on the plans.

- 3.4.1. **Coupling Bands.** Use coupling bands with annular corrugations only with pipe with annular corrugations or with helical pipe or spiral rib pipe on which the ends have been rerolled to form annular corrugations. Provide bands with corrugations that have the same dimensions as the corrugations on the pipe end or are designed to engage the first or second corrugation from the end of each pipe. The band may also include a U-shaped channel to accommodate upturned flanges on the pipe.

Field-join pipe with helically corrugated bands or bands with projections (dimples) when helical end corrugations are allowed.

Coupling bands with projections may be used with pipe that has annular or helical end corrugations or spiral ribs. Provide bands formed with the projections in annular rows with one projection for each corrugation of helical pipe or spiral rib pipe. Provide two annular rows for bands 10-1/2 in. or 12 in. wide and four annular rows of projections for bands 16-1/2 in. or 22 in. wide.

Use a coupling band width that conforms to Table 10. Connect the bands using suitable galvanized devices in accordance with AASHTO M 36. Lap coupling bands equally on each of the pipes to form a tightly closed joint after installation. Provide at least the minimum coupling band width recommended by the manufacturer for corrugations not shown in Table 10.

Table 10
Coupling Band Width Requirements

Nominal Corrugation Size ¹ (in.)	Nominal Pipe Inside Diameter ² (in.)	Min Coupling Band Width (in.)		
		Annular Corrugated Bands	Helically Corrugated Bands	Bands with Projections
2-2/3 × 1/2	12–36	7	12	10-1/2
	42–72	10-1/2	12	10-1/2
	78–84 ³	10-1/2	12	16-1/4
3 × 1	36–72	12	14	10-1/2
	78–120	12	14	16-1/4
5 × 1	36–72	20	22	12
	78–120	20	22	22
7-1/2 × 3/4 × 3/4	18–60	10-1/2	12	10-1/2
	66–102	10-1/2	12	16-1/4

1. For helically corrugated pipe or spiral rib pipe with rerolled ends, the nominal size refers to the dimensions of the end corrugations in the pipe.
2. Equivalent circular diameter for Type II pipe.
3. Diameter through 120 in. for annular corrugated bands used on rerolled ends of helically corrugated pipe or spiral rib pipe.

The minimum diameter of bolts for coupling bands is 3/8 in. for pipe diameters 18 in. and less and 1/2 in. for pipe diameters 21 in. and greater. Provide at least two bolts for bands 12 in. wide or less. Provide at least three bolts for bands wider than 12 in.

Provide galvanized hardware in accordance with Item 445, "Galvanizing."

- 3.4.2. **Bell and Spigot.** Attach the bell to one end of the corrugated metal pipe at the manufacturing plant before shipment. Provide a bell with a minimum 6-in. stab depth. Install the gasket on the spigot end and apply lubricant in accordance with the manufacturer's recommendations. Provide gaskets that meet ASTM F477 with Type A Shore durometer hardness of 45 ±5. Do not use thermoplastic elastomer as the basic polymer. Push the spigot end of the pipe into the bell end of the previously laid pipe during laying of the pipe.

- 3.4.3. **Pipe Connections and Stub Ends.** Make connections of pipe to existing pipe or appurtenances as shown on the plans or as directed. Mortar or concrete the bottom of the existing structure, if necessary, to eliminate any drainage pockets created by the new connection.

Insulate portions of aluminum pipe that are to be in contact with metal other than aluminum with a coating of bituminous material meeting the requirements of Section 460.2.2., "Protective Coating." Extend the coating at least 1 ft. beyond the area of contact.

Restore any damage that results from making the connection when connecting pipe into existing structures that will remain in service. Seal stub ends for connections to future work not shown on the plans by installing watertight plugs into the free end of the pipe.

4. MEASUREMENT

This Item will be measured by the foot. Pipe will be measured between the ends of the barrel along the flow line, not including safety end treatments. Safety end treatments will be measured in accordance with Item 467, "Safety End Treatment." Pipe that is required to be jacked, bored, or tunneled will be measured in accordance with Item 476. Where spurs, branches, or connections to existing pipe lines are involved, measurement of the spur or new connecting pipe will be made from the intersection of the flow line with the outside surface of the pipe into which it connects. Where inlets, headwalls, catch basins, manholes, junction chambers, or other structures are included in lines of pipe, the length of pipe tying into the structure wall will be included for measurement but no other portion of the structure length or width will be included.

For multiple pipes, the measured length will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

5. 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 price bid for "Corrugated Metal Pipe," "Corrugated Metal Pipe Arch," "Spiral Rib Corrugated Metal Pipe," or "Spiral Rib Corrugated Metal Pipe Arch" of the type, size, and coating specified. This price is full compensation for furnishing, hauling, placing, and joining of pipes; jointing materials; all connections to new or existing structures; breaking back, removing, and disposing of portions of the existing structure; replacing portions of the existing structure; cutting pipe ends on skew or slope; and equipment, labor, tools, and incidentals.

Protection methods for excavations greater than 5 ft. deep will be measured and paid for as required in accordance with Item 402, "Trench Excavation Protection," or Item 403, "Temporary Special Shoring." Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400. When jacking, boring, or tunneling is used at the Contractor's option, payment will be made under this Item. When jacking, boring, or tunneling is required, payment will be made under Item 476.

Item 462

Concrete Box Culverts and Drains



1. DESCRIPTION

Furnish, construct, and install concrete box culverts and drains.

2. MATERIALS

2.1. **General.** Furnish materials in accordance with the following.

- Item 420, "Concrete Substructures"
- Item 421, "Hydraulic Cement Concrete"
- Item 440, "Reinforcement for Concrete"
- Item 464, "Reinforced Concrete Pipe"

Provide cast-in-place or precast, formed or machine-made, box culverts and drains. Use Class S concrete for top slabs of cast-in-place concrete culverts for culverts with overlay, and a one- to two-course surface treatment or a top slab that is the final riding surface, unless otherwise shown on the plans. Use Class C concrete for the rest of the culvert and for all other cast-in-place boxes. Culverts with fill do not require Class S concrete.

Furnish material for precast formed and machine-made box culverts in accordance with [DMS-7305](#), "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

2.2. **Fabrication.**

2.2.1. **Cast-in-Place.** Meet Item 420 and Item 422, "Concrete Superstructures."

2.2.2. **Precast.** Multi-project fabrication plants, as defined in [DMS-7305](#), for precast formed and machine-made box culverts must be approved in accordance with [DMS-7305](#). The Materials and Tests Division maintains a list of approved multi-project precast box culvert fabrication plants on the Department's MPL. Fabricate precast boxes in accordance with [DMS-7305](#).

2.3. **Testing.**

2.3.1. **Cast-in-Place.** Provide test specimens that meet Item 421.

2.3.2. **Precast.** Make, cure, and test compressive test specimens for precast formed and machine-made box culverts in accordance with [DMS-7305](#).

2.3.3. **Testing Equipment.** The producer must furnish all equipment required for testing concrete for boxes produced in a precast plant.

2.4. **Lifting Holes.** Provide no more than four lifting holes in each section for precast boxes. Lifting holes may be cast, cut into fresh concrete after form removal, or drilled. Provide lifting holes large enough for adequate lifting devices based on the size and weight of the box section. Use lifting holes no larger than 3 in. in diameter. Cut no more than 5 in. in any direction of reinforcement per layer for lifting holes.

- 2.5. **Marking.** Clearly mark each precast unit with the following:
- name or trademark of fabricator and plant location,
 - ASTM designation and product designation (when applicable),
 - date of manufacture,
 - box size,
 - minimum and maximum fill heights,
 - designation "TX" for precast units fabricated in accordance with [DMS-7305](#),
 - fabricator's designated approval stamp for each approved unit,
 - designation "SR" for boxes meeting sulfate-resistant concrete plan requirements (when applicable), and
 - precast drainage structures used for jacking and boring (when applicable).

Mark one end of each box section, for boxes without lifting holes, on the inside and outside walls to indicate the top or bottom as it will be installed.

Indent markings into the box section or paint them on each box with waterproof paint.

- 2.6. **Tolerances.** Ensure precast sections meet the permissible variations listed in ASTM C1577.

Ensure that the sides of a section at each end do not vary from being perpendicular to the top and bottom by more than 1/2 in. when measured diagonally between opposite interior corners. Deviations from this tolerance will be acceptable if the sections can be fitted at the plant and the joint opening at any point does not exceed 1 in. Use match-marks for proper installation on sections that have been accepted in this manner.

Ensure wall and slab thicknesses are not less than shown on the plans except for occasional deficiencies not greater than 3/16 in. or 5%, whichever is greater. If proper jointing is not affected, thicknesses in excess of plan requirements are acceptable.

- 2.6.1. **Boxes for Jacking Operations.** Use boxes for jacking operations as defined in Item 476, "Jacking, Boring, or Tunneling Pipe or Box," meeting the following additional requirements:

- the box ends must be square such that no point deviates more than 3/8 in. from a plane placed on the end of the box that is perpendicular to the box sides,
- the slab and wall thicknesses must not be less than specified on the plans and must not exceed the specified thickness by more than 1/2 in., and
- variations in laying lengths of two opposite surfaces of the box must not exceed 1/4 in.

- 2.7. **Defects and Repair.** Repair precast boxes in accordance with the [DMS-7305](#) Annex. Precast boxes may be rejected for any of the conditions stated in this Annex.

- 2.8. **Storage and Shipment.** Store precast sections on a level surface. Do not place any load on the sections until design strength is reached and curing is complete. Store and ship precast boxes in accordance with [DMS-7305](#).

3. CONSTRUCTION

- 3.1. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures," except where jacking, boring, or tunneling methods are shown on the plans or permitted. Jack, bore, or tunnel in accordance with Item 476. Immediate backfilling is permitted for all box structures where joints consist of materials other than mortar. Take precautions in placing and compacting the backfill to avoid any movement of the boxes or damage to the joints. Remove and replace boxes damaged by the Contractor at no expense to the Department.
- 3.2. **Placement of Boxes.** Place the box sections as shown on the plans or as directed when precast boxes are used to form multiple barrel structures. Place material to be used between barrels as shown on the plans or as directed. Start the laying of boxes on the bedding at the outlet end and proceed toward the inlet end with

the abutting sections properly matched, unless otherwise authorized. Fit, match, and lay the boxes to form a smooth, uniform conduit true to the established lines and grades. Lower the box sections into the trench, for trench installations, without damaging the box or disturbing the bedding and the sides of the trench. Carefully clean the ends of the box before it is placed. Prevent earthen or bedding material from entering the box as it is laid. Remove and re-lay, without extra compensation, boxes that are not in alignment or show excessive settlement after laying. Form and place cast-in-place boxes in accordance with Item 420.

- 3.3. **Jointing.** Use any of the jointing materials in accordance with the joint requirements specified in Item 464, unless otherwise shown on the plans. Box joints for rubber gasketed material may be substituted for tongue and groove joints, provided they meet the requirements of ASTM C1677 for design of the joints and permissible variations in dimensions.
- 3.4. **Connections and Stub Ends.** Make connections of boxes to existing boxes, pipes, drains, or drain appurtenances as shown on the plans. Mortar or concrete the bottom of existing structures if necessary to eliminate any drainage pockets created by the connections. Connect boxes to any required headwalls, wingwalls, safety end treatments or riprap, or other structures as shown on the plans or as directed. Repair any damage to the existing structure resulting from making the connections. Finish stub ends for connections to future work not shown on the plans by installing watertight plugs into the free end of the box.
- Fill lifting holes with mortar or concrete and cure for precast boxes. Precast concrete or mortar plugs may be used.
- 3.5. **Extending.** Break back and extend existing culverts in accordance with Section 420.4.8., "Extending Existing Substructures," and Section 422.4.5., "Extending Existing Slabs," as applicable.

4. MEASUREMENT

This Item will be measured by the foot. Measurement will be made between the ends of the culvert or drain along the flow line, not including safety end treatments. Safety end treatments will be measured in accordance with Item 467, "Safety End Treatment." Measurement of spurs, branches, or new connection box section will be made from the intersection of the flow line with the outside surface of the structure into which it connects. Where inlets, headwalls, wingwalls, catch basins, manholes, junction chambers, or other structures are included in lines of culverts or drains, the length of box section tying into the structure wall will be included for measurement, but no other portion of the structure length or width will be included.

The measured length of multiple barrel structures will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

5. 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 price bid for "Concrete Box Culvert" of the size specified. This price is full compensation for constructing, furnishing, and transporting sections; preparation and shaping of the bed; backfill material between box sections; jointing of sections; jointing material; cutting of sections on skew or slope; connections to new or existing structures; breaking back, removing, and disposing of portions of the existing structure and replacing portions of the existing structure as required to make connections; concrete and reinforcing steel; and equipment, labor, materials, tools, and incidentals.

Protection methods for excavations greater than 5 ft. deep will be measured and paid for as required under Item 402, "Trench Excavation Protection," or Item 403, "Temporary Special Shoring." Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400. When jacking, boring, or tunneling is used at the Contractor's option, payment will be made under this Item. When jacking, boring, or tunneling is required, payment will be made under Item 476.

Item 466

Headwalls and Wingwalls



1. DESCRIPTION

Furnish, construct, and install concrete headwalls and wingwalls for drainage structures and underpasses.

2. MATERIALS

2.1. **General.** Furnish materials in accordance with the following.

- Item 420, "Concrete Substructures"
- Item 421, "Hydraulic Cement Concrete"
- Item 440, "Reinforcement for Concrete"

Use Class C concrete for cast-in-place and precast concrete units unless otherwise shown on the plans. Furnish cast-in-place or precast headwalls and wingwalls unless otherwise shown on the plans.

2.2. Fabrication.

2.2.1. **General.** Fabricate cast-in-place concrete units and precast units in accordance with Item 420. Use the following definitions for headwalls and wingwalls.

- **Headwalls.** Refers to all walls, including wings, at the ends of single-barrel and multiple-barrel pipe culvert structures.
- **Wingwalls.** Refers to all walls at the ends of single-barrel or multiple-barrel box culvert structures.

2.2.2. **Lifting Holes.** Provide no more than four lifting holes in each section for precast units. Lifting holes may be cast, cut into fresh concrete after form removal, or drilled. Provide lifting holes large enough for adequate lifting devices based on the size and weight of the section. The maximum hole diameter is 3 in. at the inside surface of the wall and 4 in. at the outside surface. Cut no more than one longitudinal wire or two circumferential wires per layer of reinforcing steel when locating lift holes. Repair spalled areas around lifting holes.

2.2.3. **Marking.** Clearly mark each precast unit before shipment from the casting or fabrication yard with the following:

- Date of manufacture,
- Name or trademark of the manufacturer, and
- Type and size designation.

2.2.4. **Storage and Shipment.** Store precast units on a level surface. Do not place any loads on precast concrete units until design strength is reached. Do not ship units until design strength requirements have been met.

2.2.5. **Causes for Rejection.** Precast units may be rejected for not meeting any one of the specification requirements. Individual units may also be rejected for fractures or cracks passing through the wall or surface defects indicating honeycombed or open texture surfaces. Remove rejected units from the project and replace them with acceptable units meeting the requirements of this Item.

2.2.6. **Defects and Repairs.** Occasional imperfections in manufacture or accidental damage sustained during handling may be repaired in accordance with the Department's *Concrete Repair Manual*. The repaired units will be acceptable if they conform to the requirements of this Item and the repairs are sound, properly finished, and cured in conformance with pertinent specifications.

3. CONSTRUCTION

- 3.1. **General.** Remove portions of existing structures and drill, dowel, and grout in accordance with Item 420.
- 3.2. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures." Take special precautions in placing and compacting the backfill to avoid any movement or damage to the units. Bed precast units on foundations of firm and stable material accurately shaped to conform to the bases of the units.
- 3.3. **Placement of Precast Units.** Provide adequate means to lift and place the precast units. Fill lifting holes with mortar or concrete and cure. Precast concrete or mortar plugs may be used.
- 3.4. **Connections.** Make connections to new or existing structures as shown on the plans. Furnish jointing material in accordance with Item 464, "Reinforced Concrete Pipe," or as shown on the plans.

Remove a length of the existing pipe from the headwall to the joint when removing existing headwalls as shown on the plans or as approved. Re-lay the removed pipe if approved or furnish and lay a length of new pipe.

4. MEASUREMENT

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

- 4.1. **Headwalls.** Headwalls will be measured by each end of a structure.
- 4.2. **Wingwalls.** Wingwalls will be measured by one of the following methods.
- 4.2.1. **Square Foot.** Wingwalls will be measured by the square foot of the front surface area of the wall of each type. The area will be measured from the top of the footing or apron to the top of the wall unless otherwise shown on the plans. If there is no footing or apron, then measurement is from the bottom of the wall.
- 4.2.2. **Each.** Wingwalls will be measured by each end of a structure.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the price bid for "Headwalls" of the type and pipe size (diameter or design) specified, "Wingwalls" of the type specified when measurement is by the square foot, or "Wingwalls" of the type and wall height specified when measurement is by each. For payment purposes, the wingwall height will be rounded to the nearest foot. All wingwalls and headwalls of the same type will be paid for equally when skew does not affect the type. This price is full compensation for constructing, furnishing, transporting, and installing the headwalls or wingwalls; connecting to existing structure; breaking back, removing and disposing of portions of the existing structure, and replacing portions of the existing structure as required to make connections; excavation and backfill; and concrete, reinforcing steel, corrugated metal pipe or reinforced concrete pipe, equipment, labor, tools, and incidentals.

Apron concrete or riprap between or around the wingwalls of single- or multiple-barrel box culvert structures will be measured and paid for in accordance with Item 432, "Riprap."

The removal and re-laying of existing pipe or the furnishing of new pipe to replace existing pipe will not be paid for directly, but will be subsidiary to this Item.

Item 468

Thermoplastic Pipe Culverts and Drains



1. DESCRIPTION

Furnish and install thermoplastic pipe for constructing thermoplastic pipe culverts and drains. In this Specification, all references to thermoplastic pipe include all pipe, joints, and fitting materials. Provide pipes of the sizes, types, design, and dimensions shown on the plans, including the connections and joints to new or existing pipes, storm sewer, manholes, inlets, headwalls, and other appurtenances as required to complete the work. Use of this Specification requires concrete end treatment attached, including concrete headwalls, wingwalls, and floor on exposed ends of pipe.

2. MATERIALS

Manufacturing plants must be approved in accordance with [DMS-4710](#), "Thermoplastic Pipe, Joints, and Fittings," before furnishing thermoplastic pipe for Department projects. The Department's MPL includes approved manufacturing plants and products.

Unless otherwise shown on the plans, furnish materials in accordance with the following:

- [DMS-4710](#)
- Item 400, "Excavation and Backfill for Structures"
- Item 401, "Flowable Backfill."

Provide excavatable flowable backfill when Item 401 is specified.

- 2.1. **Inspection.** The quality of materials, the process of manufacture, and the finished pipe will be subject to inspection and approval at the manufacturing plant. In addition, the finished pipe will be subject to further random inspection at the project site before and during installation.
- 2.2. **Joints.** Install the joints so that the connection of the pipe sections forms a continuous line free of irregularities in the flow line. If no joint type is specified, provide a soil-tight joint meeting the requirements of [DMS-4710](#).

3. CONSTRUCTION

Construct the pipe at locations shown on the plans or as directed. Only trench installation of thermoplastic pipe will be permitted.

- 3.1. **Contractor Submittals.** Submit to the Engineer the following documentation upon delivery of material.
 - **Certificate of Compliance.** Submit a certificate of compliance of pipe product to the Department with the following information, manufacturing plant, date of manufacture, pipe dimensions, pipe stiffness, pipe flattening, brittleness, ASTM resin cell classification, and workmanship.
 - **Installation Specifications.** Provide manufacturer's installation specifications to Engineer before beginning work. Include maximum fill depth and backfill requirements in manufacturer's installation specifications.
- 3.2. **Marking.** Install only pipe that is clearly marked at maximum 10 ft. intervals and clearly mark all couplings with:
 - manufacturer's name or trademark,
 - nominal size,

- specification designation (i.e., AASHTO M 294 or AASHTO M 330),
- manufacturing plant's designation code, and
- date manufactured.

3.3. **Excavation.** Excavate in accordance with Item 400.

Provide enough trench width for the pipe installation to ensure adequate working room to properly and safely place and compact materials placed under haunches of the pipe and other embedment materials. Provide space between the pipe and trench wall that is greater than that of the compaction equipment used.

If ground water is encountered, de-water the trench before placing and backfilling the pipe. However, restrain pipe to maintain elevation and alignment if water exists in trench when allowed by the Engineer for wet placement.

Maintain trench shoring system above pipe haunch zone to not disturb during shoring removal. Correct excavation and backfill if disturbed to reestablish the integrity of the bedding and backfill specified herein.

When using flowable backfill, the minimum allowable trench width is the pipe outside diameter plus 12 in.

When using a granular or a cement stabilized backfill, the minimum allowable trench width is specified in Table 1.

Table 1
Min Trench Width (Granular and Cement Stabilized Backfill)

Nominal Pipe Diameter (in.)	Min Trench Width (in.)
18	39
24	48
36	66
42	75
48	84

3.4. **Installing Pipe in Embankment.** If any portion of the pipe projects above the existing ground level, construct an embankment as shown on the plans or as directed, for a minimum distance outside each side of the pipe location of five times the diameter and to a minimum elevation of 2 ft. above the top of the pipe. Excavate the trench to a width as specified in Section 3.3., "Excavation."

3.5. **Bedding.** Bed the pipe in a foundation of cohesionless material, such as sand, crushed stone, or pea gravel, with a maximum allowable size of 3/8 in. Provide bedding with 4 in. minimum thickness unless subgrade contains large rocks in which increase to minimum of 6 in. Compact the bedding except the width of one third the width of pipe diameter directly under the centerline of the pipe – leave this region loose (uncompacted).

3.6. **Handling and Storing Pipe.** Store pipe above ground on adequate blocking. Always keep pipe clean and fully drained during storage. Provide proper equipment for hoisting and lowering the pipe into the trench without damaging the pipe or disturbing the bedding or the walls of the trench. Any protective covering of gaskets should remain until the pipe is ready for installation.

3.7. **Laying Pipe.** Unless otherwise authorized, start laying pipe on the bedding at the outlet end with the separate sections firmly joined together. Hoist and lower sections of pipe into the trench without damaging the pipe or disturbing the bedding or the sides of the trench. Remove and re-lay any pipe that is not in alignment or that shows excessive settlement after laying, at no expense to the Department.

Lay multiple installation of thermoplastic pipe with the centerlines of the individual barrels parallel. Unless otherwise shown on the plans, maintain the clear distances between outer surfaces of adjacent pipes shown in Table 2.

Table 2
Min Clear Distance Between Pipes

Nominal Pipe Diameter (in.)	Min Clear Distance Between Pipes (in.)
18	14
24	17
30	20
36	23
42	26
48	29

- 3.8. **Reusing Existing Appurtenances.** When existing appurtenances are specified on the plans for reuse, sever the portion to be reused from the existing culvert and move it to the new position previously prepared, by approved methods.

Provide connections conforming to the requirements for joining sections of pipes as indicated in this specification or as shown on the plans. Restore any headwalls and any aprons or pipes attached to the headwall that are damaged during moving operations, to their original condition, at no expense to the Department. The Contractor has the option to remove and dispose of the existing headwalls and aprons and construct new headwalls at no expense to the Department, in conformance with the pertinent specifications and design indicated on the plans or as furnished.

- 3.9. **Pipe Jointing.** Follow pipe manufacturer's installation specifications when joining pipes together. Remove gasket protective film just before joining pipes. Provide suitable protection to the push end of the pipe if force is applied to end of pipe to obtain required overlap. Do not damage pipe during pipe joining operations. At a minimum, achieve the minimum specified overlap of the two pipes within the connection. Do not over join pipes to disrupt flow line inside of pipe. Suitable joints are as follows.

- **Integral Bell and Spigot.** Ensure the bell overlaps a minimum of two corrugations of the spigot end when fully engaged. Provide the spigot end with an O-ring gasket in accordance with ASTM F477.
- **Exterior Bell and Spigot.** Fully weld the bell to the exterior of the pipe and overlap the spigot end so that the flow lines and ends match when fully engaged. Provide the spigot end with an O-ring gasket in accordance with ASTM F477.
- **Split Couplers.** For soil-tight joint connections only. Join pipe with coupling bands covering at least two full corrugations on the ends of each pipe being joined.

- 3.10. **Sewer Connections and Stub Ends.** Make connections of pipe sewer to existing sewers or sewer appurtenances as shown on the plans or as directed. Mortar or concrete the bottom of the existing structures, if necessary, to eliminate any drainage pockets created by the new connection. Where the sewer is connected into existing structures which are to remain in service, restore any damage to the existing structure resulting from making the connection to the satisfaction of the Engineer. Seal stub ends, for connections to future work not shown on the plans, by installing watertight plugs into the free end of the pipe. Include the cost for the above in cost of the pipe.

- 3.11. **Backfilling.** Backfill from the pipe bedding up to 12 in. above the top of the pipe to provide necessary structural support to the pipe and control pipe deflection. Take care when placing and compacting the backfill material to not damage pipe. Adjust backfilling operations if pipe is being moved out of alignment, is causing pipe distortion, or disrupting joint tightness. Remove backfill around problem areas and restore pipe section before continuing to backfill. Provide uniform backfill material and uniform compacted density throughout the length of the pipe, to avoid unequal pressure. Use care to ensure proper backfill under the pipe, in the haunch zone.

Provide type of backfill as shown on the plans. When granular material is specified, provide backfill consisting of hard, durable, clean granular material that is free of organic matter, clay lumps, and other deleterious matter. Provide backfill meeting the gradation requirements shown in Table 3.

Table 3
Gradation Requirements for Granular Backfill Material

Sieve Size	Percent Retained (Cumulative)
1 in.	0–5
7/8 in.	0–35
1/2 in.	0–75
3/8 in.	0–95
No. 4	35–100
No. 10	50–100
No. 200	90–100

Place the backfill in accordance with Item 400 or Item 401 and as supplemented below.

- **Granular Backfill.** Place in uniform layers a minimum 6 in. deep (loose measurement), wet if required, and thoroughly compact it between adjacent structures and between the structure and the sides of the trench. Hand place, if necessary, under the pipe in haunch zone to ensure complete filling and support. Limit compaction to hand-operated tamping equipment to compact backfill within the region 12 in. either side of the pipe and between pipes. Place filter fabric between the native soil and the backfill unless otherwise shown on the plans. Use filter fabric conforming to the requirements of [DMS-6200](#), "Filter Fabric," Type 1.
- **Cement Stabilize Backfill.** Place and compact to completely fill all voids. Hand place, if necessary, under the pipe in haunch zone to ensure complete filling and support.
- **Flowable Backfill.** Place in a manner that will not result in uplift of the pipe or restrain pipe enough to maintain constant grade flowline at required elevation. Place across the entire width of the trench and maintain a minimum depth of 12 in. above the pipe. Wait a minimum of 24 hr. before backfilling the remaining portion of the trench with other backfill material in accordance with Item 400, unless strength information for the flowable fill is available and strength exceeds 100 psi compressive strength.

Inspect inside periphery of pipe for local or unequal deformation caused by improper construction methods during backfilling. Stop work and address backfilling technique if measured deflection of pipe exceeds 5% or there are other issues found effecting quality of pipe installation.

To validate pipe installation methods, perform an initial quality control inspection after first installation of each size of pipe is completed on the project. Notify the Engineer when this inspection takes place.

- 3.12. **Protecting the Pipe.** Unless otherwise shown on the plans or permitted in writing, do not use heavy earth-moving equipment over the structure until a minimum of 4 ft. of permanent or temporary compacted fill is placed over the top of the structure.

4. INSPECTION OR ACCEPTANCE

- 4.1. **Inspection.** Visually inspect the pipes for damage, deflection (out of roundness), joint tightness, evidence of soil intrusion, and vertical alignment (ponding). If the pipe run is 30 ft. or less in length, not under a public roadway, and the initial visual inspection did not indicate any deflection or other deficiencies, additional testing described below will be waived, unless otherwise noted. Provide high intensity lights, laser distant measuring devices, and other equipment to facilitate visual inspection.

Perform final inspection a minimum of 30 days after the backfill has been completed or earlier as needed to allow roadway surfacing when approved. Have two test mandrels available for each size of pipe. Size mandrels based on the manufacturer's average inside diameter and field verified based on a proving ring. Provide metal mandrels with at least nine fixed fins evenly distributed around the circumference. Pull mandrel sized at 95% the diameter of the pipe through the entire length. If the 95% mandrel cannot be pulled entirely through, pull a mandrel 92.5% the pipe diameter through the pipe. Additionally, if the 95% mandrel cannot be pulled entirely through the pipe or there is a substantial disruption in ease of mandrel movement through the pipe, visually inspect installed pipe utilizing a remote operated camera mounted on vehicle or sled able to

move through the pipe. Check for joint separation, cracks, tears, buckling, deflection, and out of roundness, evidence of soil intrusion and vertical alignment (ponding water).

Notify the Engineer when inspections are to occur. The Department will provide inspection form to be used. Document process and findings and return form to the Engineer.

4.2.

Remediation. Develop a plan to address all deficiencies of joint separation, damage, evidence of soil intrusion, vertical alignment, and when pipe deflection exceeds 5% of the nominal diameter.

- **Joints.** Remediate pipe showing evidence of crushing at the joints. Note differential movement, improper joint sealing, movement or settlement of pipe sections, and leakage in the inspection report. Remediate joint separation of greater than 1 in. Repair or replace pipe sections where soil migration through the joint is occurring.
- **Cracks or Tears.** Remediate cracks or splits in the interior wall of the pipe. Use remediation methods in conformance with recommendations of the pipe manufacturer and accepted and authorized by the Engineer.
- **Buckling, bulging, and racking.** Note in the inspection report flat spots or dents at the crown, sides, or flowline of the pipe due to racking. Note areas of wall buckling and bulging in the inspection report. The Engineer will determine if corrective action is necessary.
- **Deflection.** Where pipe deflection exceeds 5% of the nominal diameter, submit to the Engineer for review and approval an evaluation utilizing a Professional Engineer taking into consideration the severity of the deflection, structural integrity, environmental conditions, and the design service life of the pipe. Remediate or replace pipe where the evaluation finds the deflection could be problematic or where pipe deflection exceeds 7.5% of the nominal diameter.

5.

END TREATMENT

Install concrete end sections per requirements of the plans. End section must include concrete headwall, wings, and floor. Reference the following for this work.

- Item 466, "Headwalls and Wingwalls"
- Item 467, "Safety End Treatment"

6.

MEASUREMENT

This Item will be measured by the foot. Measurement will be made between the ends of the pipe barrel along the flow line, not including safety end treatments. Measurement of spurs, branches, or connections to existing pipe will be made from the intersection of the flow line with the outside surface of the pipe into which it connects.

Where inlets, headwalls, catch basins, manholes, junction chambers, or other structures are included in lines of pipe, the length of pipe tying into the structure wall will be included for measurement, but no other portion of the structure length or width will be included.

For multiple pipes, the measured length will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid for is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

7.

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 price bid for "Thermoplastic Pipe" of the size and type specified. This price is full compensation for furnishing, hauling, placing, and joining pipes; connecting to new or

existing structures; moving and reusing headwalls where required; removing and disposing of portions of existing structures as required; cutting of pipe ends on skew; inspection and testing; and labor, tools, equipment, and incidentals.

Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400.

Flowable backfill will be paid in accordance with Item 401.

Concrete end treatments will be paid in conformance with other items on the plans.

Item 496

Removing Structures



1. DESCRIPTION

Remove and either dispose of or salvage structures.

2. CONSTRUCTION

- 2.1. **Demolition Plans.** Follow the demolition sequence shown on the plans for bridge structures to be removed or submit a demolition plan if shown on the plans. Include in the required demolition plan the type and location of equipment to be used, the method and sequence of removal of the structural elements, and a narrative indicating the stability of the partially demolished structure is maintained throughout the demolition process. Have these plans signed and sealed by a licensed professional engineer when demolished structure intersects active roadways and as otherwise shown on the plans. Submit required demolition plans at least 14 days before starting work unless otherwise directed. Department approval of these plans is not required, but the Department reserves the right to request modifications to the plans when work could affect the safety of the traveling public and when around other transportation facilities to remain in place. Notify the Department 30 days before starting any bridge demolition work to allow for required notifications to other agencies.
- 2.2. **Removal.**
 - 2.2.1. **Pipes.** Avoid damaging appurtenances determined by the Engineer to be salvageable.
 - 2.2.2. **Concrete, Brick, or Stone Structures.** Portions of structures that will not interfere with the proposed construction may remain in place 2 ft. or more below the permanent ground line. Square off remaining structures and cut reinforcement flush with the surface of the concrete.
 - 2.2.3. **Steel Structures.** Dismantle steel to be retained by the Department or re-erected by cold-cutting fastener heads and punching or drilling the remaining portion of the fastener, air-arc gouging welded connections, and flame-cutting beams along a straight line. The Engineer may approve other methods of cutting. Cut beams at the locations shown on the plans. Match-mark steel to be re-erected with paint in conformance with the erection drawings. Remove steel piles or cut off 2 ft. or more below the permanent ground line.
 - 2.2.4. **Timber Structures.** Remove all fasteners from timber determined by the Engineer to be salvageable. Remove timber piles or cut off 2 ft. or more below the permanent ground line.
- 2.3. **Salvage.** Avoid damage to materials shown on the plans to be salvaged. Deliver materials to be retained by the Department to the location shown on the plans. Block up salvaged steel materials off the ground.
- 2.4. **Disposal.** Material removed that is not deemed to be salvageable is the property of the Contractor. Dispose of removed material off the right of way in conformance with federal, state, and local regulations.
- 2.5. **Backfill.** Backfill excavation and voids to the original ground line if resulting from the removal of structures. Place backfill that will support any portion of the roadbed or embankment to the same requirements for placing embankment. Backfill other areas in 10-in. layers, loose measurement, and compact to the density of adjacent undisturbed material.

3. MEASUREMENT

This Item will be measured by each structure or by the foot.

4. PAYMENT

The work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Removing Structures" of the type of structure specified. This price is full compensation for demolition plan preparation, loading, hauling, disposal, stockpiling, removal of appurtenances, excavation and backfill, equipment, labor, tools, and incidentals.

Item 502

Barricades, Signs, and Traffic Handling



1. DESCRIPTION

Provide, install, move, replace, maintain, clean, and remove all traffic control devices shown on the plans and as directed.

Temporary work zone (TWZ) traffic control devices manufactured after December 31, 2019, must have been successfully tested to the crashworthiness requirements of the 2016 edition of the AASHTO *Manual for Assessing Safety Hardware* (MASH). An exception to the manufacture date applies when, based on the project's date of letting, a category of MASH-2016 compliant TWZ traffic control devices was not approved, or was not self-certified. In such case, devices that meet NCHRP-350 or MASH-2009 may be used.

Temporary work zone (TWZ) traffic control devices manufactured on or before December 31, 2019, must at a minimum have been successfully tested to the crashworthiness requirements of NCHRP-350 or MASH-2009. These devices may continue to be used throughout their normal service lives.

Such TWZ traffic control devices include:

- portable sign supports,
- barricades,
- portable traffic barriers designated exclusively for use in TWZs,
- crash cushions designated exclusively for use in TWZs,
- longitudinal channelizers, and
- truck-mounted attenuators (TMAs) and trailer attenuators (TAs).

Category I devices (i.e., lightweight devices), such as cones, tubular markers, and drums without lights or signs attached, may be self-certified by the vendor or provider, with documentation provided to the Department, or as shown on Department's Compliant Work Zone Traffic Control Device List.

2. CONSTRUCTION

Comply with the requirements of Article 7.2., "Safety."

Implement the traffic control plan (TCP) shown on the plans.

Install traffic control devices straight and plumb. Make changes to the TCP only as approved. Minor adjustments to meet field conditions are allowed.

Submit Contractor-proposed TCP changes, signed and sealed by a licensed professional engineer, for approval. The Engineer may develop, sign, and seal Contractor-proposed changes. Changes must conform to guidelines established in the TMUTCD using approved products from the Department's Compliant Work Zone Traffic Control Device List.

Maintain traffic control devices by taking corrective action when notified. Corrective actions include, but are not limited to, cleaning, replacing, straightening, covering, and removing devices. Maintain the devices such that they are properly positioned and spaced, are legible, and have retroreflective characteristics that meet requirements day or night and in all weather conditions.

The Engineer may authorize or direct in writing the removal or relocation of project limit advance warning signs. When project limit advance warning signs are removed before final acceptance, provide traffic control in accordance with the TMUTCD for minor operations as approved.

Remove all traffic control devices upon completion of the work as shown on the plans or as directed.

3. MEASUREMENT

"Barricades, Signs, and Traffic Handling" will be measured by the month. Law enforcement personnel with patrol vehicles will be measured by the hour for each person.

4. PAYMENT

- 4.1. **Barricades, Signs, and Traffic Handling.** Except for Contracts with callout work and work orders, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Barricades, Signs, and Traffic Handling." This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.

When the plans establish pay items for particular work in the TCP, that work will be measured and paid for under pertinent Items.

TMA's and TA's will be paid for under Item 505, "Truck-Mounted Attenuator (TMA) and Trailer Attenuator (TA)." Portable changeable message signs will be paid for under Item 503, "Portable Changeable Message Sign." Portable traffic signals will be paid for under Item 510, "One-Way Traffic Control," unless otherwise shown on the plans.

In accordance with Section 7.2.3., "Safety Contingency," funds have been included in the project budget to improve the effectiveness of traffic handling and enhance safety during the course of this project.

- 4.1.1. **Initiation of Payment.** Payment for this Item will begin on the first estimate after barricades, signs, and traffic handling devices have been installed in accordance with the TCP.

- 4.1.2. **Paid Months.** Monthly payment will be made each succeeding month for this Item provided the barricades, signs, and traffic handling devices have been installed and maintained in accordance with the TCP until the Contract amount has been paid.

If, within the timeframe established by the Engineer, the Contractor fails to provide or properly maintain signs and barricades in compliance with the Contract requirements, as determined by the Engineer, the Contractor will be considered in noncompliance with this Item. No payment will be made for the months in question, and the total final payment quantity will be reduced by the number of months the Contractor was in noncompliance.

- 4.1.3. **Maximum Total Payment Before Acceptance.** The total payment for this Item will not exceed 10% of the total Contract amount before final acceptance in accordance with Article 5.12., "Final Acceptance." The remaining balance will be paid in accordance with Section 502.4.1.5., "Balance Due."

- 4.1.4. **Total Payment Quantity.** The quantity paid under this Item will not exceed the total quantity shown on the plans, except as modified by change order and as adjusted in accordance with Section 502.4.1.2., "Paid Months." An overrun of the plans quantity for this Item will not be allowed for approving designs; testing; material shortages; closed construction seasons; curing periods; establishment, performance, test, and maintenance periods; failure to complete the work in the number of months allotted; or delays caused directly or indirectly by Contract requirements.

- 4.1.5. **Balance Due.** The remaining unpaid months of barricades less non-compliance months will be paid on final acceptance of the project, if all work is complete and accepted in accordance with Article 5.12., "Final Acceptance."
- 4.1.6. **Contracts with Callout Work and Work Orders.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be subsidiary to pertinent Items, except for federally funded Contracts.
- 4.2. **Law Enforcement Personnel.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid by Contractor force account for "Law Enforcement Personnel." This price is full compensation for furnishing all labor, materials, supplies, equipment, patrol vehicles, fees, and incidentals necessary to complete the work as directed.

Item 506

Temporary Erosion, Sedimentation, and Environmental Controls



1. DESCRIPTION

Install, maintain, and remove erosion, sedimentation, and environmental control measures to prevent or reduce the discharge of pollutants and protect environmental resources in accordance with the Stormwater Pollution Prevention Plan (SWP3) and environmental layout shown on the plans. Comply with Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit (CGP) TXR150000 requirements. Control measures are defined as Best Management Practices (BMPs) used to prevent or reduce the discharge of pollutants and measures to protect environmental resources. Control measures include, but are not limited to, rock filter dams, temporary pipe slope drains, temporary paved flumes, construction exits, earthwork for erosion control, pipe, construction perimeter fence, sandbags, temporary sediment control fence, biodegradable erosion control logs, vertical tracking, temporary or permanent seeding, and other measures. Erosion and sediment control devices must be selected from the Erosion Control Approved Products List. Perform work in a manner to prevent degradation of receiving waters, protect environmental resources, facilitate project construction, and comply with applicable federal, state, and local regulations. Ensure the installation and maintenance of control measures are performed in conformance with the manufacturer's or designer's specifications.

2. MATERIALS

Furnish materials in accordance with the following.

- Item 161, "Compost"
- Item 432, "Riprap"
- Item 556, "Pipe Underdrains"

2.1. Rock Filter Dams.

2.1.1. **Aggregate.** Furnish aggregate with approved hardness, durability, cleanliness, and resistance to crumbling, flaking, and eroding. Provide the following.

- **Types 1, 2, and 4 Rock Filter Dams.** Use 3–6-in. aggregate.
- **Type 3 Rock Filter Dams.** Use 4–8-in. aggregate.

2.1.2. **Wire.** Provide minimum 20-gauge galvanized wire for the steel wire mesh and tie wires for Types 2 and 3 rock filter dams. Type 4 dams require:

- a double-twisted, hexagonal weave with a nominal mesh opening of 2-1/2 × 3-1/4 in.,
- minimum 0.0866-in. steel wire for netting,
- minimum 0.1063-in. steel wire for selvages and corners, and
- minimum 0.0866 in. for binding or tie wire.

2.1.3. **Sandbag Material.** Furnish sandbags meeting Section 506.2.8., "Sandbags," except that any gradation of aggregate may be used to fill the sandbags.

2.2. **Temporary Pipe Slope Drains.** Provide corrugated metal pipe, polyvinyl chloride (PVC) pipe, flexible tubing, watertight connection bands, grommet materials, prefabricated fittings, and flared entrance sections as shown on the plans. Recycled and other materials meeting these requirements are allowed if approved.

Furnish concrete in accordance with Item 432.

- 2.3. **Temporary Paved Flumes.** Furnish asphalt concrete, hydraulic cement concrete, or other comparable non-erodible material as shown on the plans. Provide rock or rubble with a minimum diameter of 6 in. and a maximum volume of 1/2 cu. ft. for the construction of energy dissipaters.
- 2.4. **Construction Exits.** Provide materials as shown on the plans and in accordance with this Section.
- 2.4.1. **Rock Construction Exit.** Provide crushed aggregate for long- and short-term construction exits. Furnish aggregates that are clean, hard, durable, and free of adherent coatings such as salt, alkali, dirt, clay, loam, shale, soft or flaky materials, and organic and injurious matter. Use 4–8-in. aggregate for Type 1. Use 2–4-in. aggregate for Type 3.
- 2.4.2. **Timber Construction Exit.** Furnish No. 2 quality or better railroad ties and timbers for long-term construction exits, free of large and loose knots and treated to control rot. Fasten timbers using nuts and bolts or lag bolts, of at least 1/2 in. diameter, unless otherwise shown on the plans or allowed. Provide plywood or pressed wafer board at least 1/2 in. thick for short-term exits.
- 2.4.3. **Foundation Course.** Provide a foundation course consisting of flexible base, bituminous concrete, hydraulic cement concrete, or other materials as shown on the plans or directed.
- 2.5. **Embankment for Erosion Control.** Provide rock, loam, clay, topsoil, or other earth materials that will form a stable embankment to meet the intended use.
- 2.6. **Pipe.** Provide pipe outlet material in accordance with Item 556 and as shown on the plans.
- 2.7. **Construction Perimeter Fence.**
- 2.7.1. **Posts.** Provide essentially straight wood or steel posts that are at least 60 in. long. Furnish soft wood posts with a minimum diameter of 3 in. or use nominal 2 × 4-in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/5 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.25 lb. per foot.
- 2.7.2. **Fence.** Provide orange construction fencing as approved.
- 2.7.3. **Fence Wire.** Provide 14-gauge or larger galvanized smooth or twisted wire. Provide 16-gauge or larger tie wire.
- 2.7.4. **Flagging.** Provide brightly colored flagging that is fade-resistant and at least 3/4 in. wide to provide maximum visibility both day and night.
- 2.7.5. **Staples.** Provide staples with a crown at least 1/2 in. wide and legs at least 1/2 in. long.
- 2.7.6. **Used Materials.** Previously used materials meeting the applicable requirements may be used if approved.
- 2.8. **Sandbags.** Provide sandbag material of polypropylene, polyethylene, or polyamide woven fabric with a minimum unit weight of 4 oz. per square yard, a Mullen burst-strength exceeding 300 psi, and an ultraviolet (UV) stability exceeding 70%.
- Use natural coarse sand or manufactured sand meeting the gradation shown in Table 1 to fill sandbags. Filled sandbags must be 24–30 in. long, 16–18 in. wide, and 6–8 in. thick.

Table 1
Sand Gradation

Sieve Size	Retained (% by Weight)
#4	Maximum 3%
#100	Minimum 80%
#200	Minimum 95%

Aggregate may be used instead of sand for situations where sandbags are not adjacent to traffic. The aggregate size must not exceed 3/8 in.

- 2.9. **Temporary Sediment Control Fence.** Provide a net-reinforced fence using woven geotextile fabric. Logos visible to the traveling public will not be allowed.
- 2.9.1. **Fabric.** Provide fabric materials in accordance with [DMS-6230](#), "Temporary Sediment Control Fence Fabric."
- 2.9.2. **Posts.** Provide essentially straight wood or steel posts with a minimum length of 48 in., unless otherwise shown on the plans. Furnish soft wood posts at least 3 in. in diameter or use nominal 2 × 4-in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/2 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.25 lb. per foot.
- 2.9.3. **Net Reinforcement.** Provide net reinforcement of at least 12.5-gauge (Standard Wire Gauge) galvanized welded wire mesh, with a maximum opening size of 2 × 4 in., at least 24 in. wide, unless otherwise shown on the plans.
- 2.9.4. **Staples.** Provide staples with a crown at least 3/4 in. wide and legs 1/2 in. long.
- 2.9.5. **Used Materials.** Use recycled material meeting the applicable requirements if approved.
- 2.10. **Biodegradable Erosion Control Logs.**
- 2.10.1. **Core Material.** Furnish core material that is biodegradable or recyclable. Use compost, mulch, aspen excelsior wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or any other acceptable material unless specifically shown on the plans. Permit no more than 5% of the material to escape from the containment mesh. Furnish compost in accordance with Item 161.
- 2.10.2. **Containment Mesh.** Furnish containment mesh that is 100% biodegradable, photodegradable, or recyclable, such as burlap, twine, UV photodegradable plastic, polyester, or any other acceptable material.
- Furnish biodegradable or photodegradable containment mesh when log will remain in place as part of a vegetative system.
- Furnish recyclable containment mesh for temporary installations.
- 2.10.3. **Size.** Furnish biodegradable erosion control logs with diameters as shown on the plans or as directed. Stuff containment mesh densely so logs do not deform.

3. QUALIFICATIONS, TRAINING, AND EMPLOYEE REQUIREMENTS

- 3.1. **Contractor Responsible Person Environmental (CRPE) Qualifications and Responsibilities.** Provide and designate in writing at the preconstruction conference a CRPE and alternate CRPE who have overall responsibility for managing environmental compliance. The CRPE will implement stormwater and erosion control practices, oversee and observe stormwater control measure monitoring and management, oversee environmental compliance requirements, and monitor the project site daily and produce daily monitoring reports as long as there are BMPs in place or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES CGP TXR150000. Take required training in accordance with Section 7.7.4.4, "Training."

Maintain daily monitor reports and make them available within 24 hr. upon request. During time suspensions when work is not occurring or on Contract non-work days, daily inspections are not required unless a rain event has occurred. The CRPE will provide recommendations on how to improve the effectiveness of control measures. Attend the Department's preconstruction conference for the project.

Ensure training is completed in accordance with Section 7.7.4.4., "Training," by all applicable personnel before employees work on the project. Document, maintain, and make available within 24 hr. of a request, a list, signed by the CRPE, of all applicable Contractor and subcontractor employees who have completed the training. Include the employee's name, the training course name, and the date the employee completed the training.

- 3.2. **Contractor Superintendent Qualifications and Responsibilities.** Provide a superintendent who is competent, has experience with and knowledge of stormwater management, and is knowledgeable of the requirements and the conditions of the TPDES CGP TXR150000. The superintendent will manage and oversee the day-to-day operations and activities at the project site, work with the CRPE to provide effective stormwater management at the project site, represent and act on behalf of the Contractor, and attend the Department's preconstruction conference for the project. Take training as required in Section 7.7.4.4., "Training."

4. CONSTRUCTION

- 4.1. **Contractor Responsibilities.** Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES CGP TXR150000, and as directed. Coordinate stormwater management with all other work on the project. Develop and implement an SWP3 for project-specific material supply plants within and outside the Department's right of way in conformance with the specific or general stormwater permit requirements. Prevent water pollution from stormwater associated with construction activity from entering any surface water or private property on or adjacent to the project site.
- 4.2. **Implementation.** The CRPE, or alternate CRPE, must be accessible by telephone and able to respond to project-related stormwater management or other environmental emergencies 24 hr. per day.
- 4.2.1. **Commencement.** Implement the SWP3 as shown on the plans and as directed. Contractor-proposed recommendations for changes will be allowed as approved. Conform to the established guidelines in the TPDES CGP TXR150000 to make changes. Do not implement changes until approval has been received and changes have been incorporated into the plans. Minor adjustments to meet field conditions are allowed and will be recorded in the SWP3.
- 4.2.2. **Phasing.** Implement control measures before the commencement of activities that result in soil disturbance. Phase and minimize the soil disturbance to the areas shown on the plans. Coordinate temporary control measures with permanent control measures and all other work activities on the project to assure economical, effective, safe, and continuous water pollution prevention. Provide control measures that are appropriate to the construction means, methods, and sequencing allowed by the Contract. Exercise precaution throughout the life of the project to prevent pollution of ground waters and surface waters. Schedule and perform clearing and grubbing operations so that stabilization measures will follow immediately thereafter if project conditions permit. Bring all grading sections to final grade as soon as possible and implement temporary and permanent control measures at the earliest time possible. Implement temporary control measures when required by TPDES CGP TXR150000 or otherwise necessitated by project conditions.
- Do not prolong final grading and shaping. Preserve vegetation where possible throughout the project, and minimize clearing, grubbing, and excavation within stream banks, bed, and approach sections.
- 4.3. **General.**
- 4.3.1. **Temporary Alterations or Control Measure Removal.** Altering or removal of control measures is allowed when control measures are restored within the same working day.

- 4.3.2. **Stabilization.** Initiate stabilization for disturbed areas no more than 14 days after the construction activities in that portion of the site have temporarily or permanently ceased. Establish a uniform vegetative cover or use another stabilization practice in accordance with TPDES CGP TXR150000.
- 4.3.3. **Finished Work.** Remove and dispose of all temporary control measures upon acceptance of vegetative cover or other stabilization practice unless otherwise directed. Complete soil disturbing activities and establish a uniform perennial vegetative cover. A project will not be considered for acceptance until a vegetative cover of 70% density of existing adjacent undisturbed areas is obtained or equivalent permanent stabilization is obtained in accordance with TPDES CGP TXR150000. The Engineer may accept the work before vegetative cover of 70% density of existing adjacent undisturbed areas. An exception will be allowed in arid areas as defined in TPDES CGP TXR150000.
- 4.3.4. **Restricted Activities and Required Precautions.** Do not discharge onto the ground or into surface waters any pollutants such as chemicals, raw sewage, fuels, lubricants, coolants, hydraulic fluids, bitumens, or any other petroleum product. Operate and maintain equipment onsite to prevent actual or potential water pollution. Manage, control, and dispose of litter onsite such that no adverse impacts to water quality occur. Prevent dust from creating a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property. Wash out concrete trucks only as described in TPDES CGP TXR150000. Use appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water (i.e., dewatering). Immediately address chemical and hydrocarbon spills caused by the Contractor. Keep a spill kit onsite. Prevent discharges that would contribute to a violation of Edwards Aquifer Rules, water quality standards, the impairment of a listed water body, or other state or federal law.
- 4.4. **Installation, Maintenance, and Removal Work.** Perform work in accordance with the SWP3, in conformance with manufacturers' guidelines, and in accordance with TPDES CGP TXR150000. Install and maintain the integrity of temporary erosion and sedimentation control devices to accumulate silt and debris until soil disturbing activities are completed and permanent erosion control features are in place, or the disturbed area has been adequately stabilized as approved.

The Department will inspect and document the condition of the control measures at the frequency shown on the plans and will provide the Construction SWP3 Field Inspection and Maintenance Reports to the Contractor. Make corrections as soon as possible before the next anticipated rain event or within 7 calendar days after being able to enter the worksite for each control measure. The only acceptable reason for not accomplishing the corrections within the timeframe specified is when site conditions are considered "too wet to work." Take immediate action if a correction is deemed critical as directed. When corrections are not made within the established timeframe, all work will cease on the project and time charges will continue while the control measures are brought into compliance. Commence work once the Engineer reviews and documents the project is in compliance. Commencing work does not release the Contractor of the liability for noncompliance with the SWP3, the plans, or TPDES CGP TXR150000.

The Engineer may limit the disturbed area if the Contractor cannot control soil erosion and sedimentation resulting from the Contractor's operations. Implement additional controls as directed.

Remove devices upon approval or as directed. Finish-grade and dress the area upon removal. Stabilize disturbed areas in accordance with TPDES CGP TXR150000, and as shown on the plans or directed. Materials removed are considered consumed by the project. Retain ownership of stockpiled material and remove it from the project when new installations or replacements are no longer required.

- 4.4.1. **Rock Filter Dams for Erosion Control.** Remove trees, brush, stumps, and other objectionable material that may interfere with the construction of rock filter dams. Place sandbags as a foundation when required or at the Contractor's option.

Place the aggregate to the lines, height, and slopes specified, without undue voids for Types 1, 2, 3, and 5. Place the aggregate on the mesh and then fold the mesh at the upstream side over the aggregate and secure it to itself on the downstream side using wire ties, or hog rings for Type 2 and Type 3, or as directed.

Place rock filter dams perpendicular to the flow of the stream or channel unless otherwise directed. Construct filter dams in accordance with the following criteria unless otherwise shown on the plans.

- 4.4.1.1. **Type 1 (Non-Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.2. **Type 2 (Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.3. **Type 3 (Reinforced).**
- **Height.** At least 36 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.4. **Type 4 (Sack Gabions).** Unfold sack gabions and smooth out kinks and bends. Connect the sides by lacing in a single-loop-double-loop pattern on 4–5-in. spacing for vertical filling. Pull the end lacing rod at one end until tight, wrap around the end, and twist four times. Fill with stone at the filling end, pull the rod tight, cut the wire with approximately 6 in. remaining, and twist wires four times.
- Place the sack flat in a filling trough, fill with stone, connect sides, and secure ends as described above for horizontal filling.
- Lift and place without damaging the gabion. Shape sack gabions to existing contours.
- 4.4.1.5. **Type 5.** Provide rock filter dams as shown on the plans.
- 4.4.2. **Temporary Pipe Slope Drains.** Install pipe with a slope as shown on the plans or as directed. Construct embankment for the drainage system in 8-in. lifts to the required elevations. Hand-tamp the soil around and under the entrance section to the top of the embankment as shown on the plans or as directed. Form the top of the embankment or earth dike over the pipe slope drain at least 1 ft. higher than the top of the inlet pipe at all points. Secure the pipe with hold-downs or hold-down grommets spaced at most 10 ft. on center. Construct the energy dissipaters or sediment traps as shown on the plans or as directed. Construct the sediment trap using concrete or rubble riprap in accordance with Item 432, when shown on the plans.
- 4.4.3. **Temporary Paved Flumes.** Construct paved flumes as shown on the plans or as directed. Provide excavation and embankment (including compaction of the subgrade) of material to the dimensions shown on the plans unless otherwise indicated. Install a rock or rubble riprap energy dissipater, constructed from the materials specified above, to a minimum depth of 9 in. at the flume outlet to the limits shown on the plans or as directed.
- 4.4.4. **Construction Exits.** Prevent traffic from crossing or exiting the construction site or moving directly onto a public roadway, alley, sidewalk, parking area, or other right of way areas other than at the location of construction exits when tracking conditions exist. Construct exits for either long- or short-term use.
- 4.4.4.1. **Long-Term.** Place the exit over a foundation course as required. Grade the foundation course or compacted subgrade to direct runoff from the construction exits to a sediment trap as shown on the plans or as directed. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed.
- 4.4.4.1.1. **Type 1.** Construct to a depth of at least 8 in. using crushed aggregate as shown on the plans or as directed.

- 4.4.4.1.2. **Type 2.** Construct using railroad ties and timbers as shown on the plans or as directed.
- 4.4.4.2. **Short-Term.**
- 4.4.4.2.1. **Type 3.** Construct using crushed aggregate, plywood, or wafer board. This type of exit may be used for daily operations where long-term exits are not practical.
- 4.4.4.2.2. **Type 4.** Construct as shown on the plans or as directed.
- 4.4.5. **Earthwork for Erosion Control.** Perform excavation and embankment operations to minimize erosion and to remove collected sediments from other erosion control devices.
- 4.4.5.1. **Excavation and Embankment for Erosion Control Features.** Place earth dikes, swales, or combinations of both along the low crown of daily lift placement, or as directed, to prevent runoff spillover. Place swales and dikes at other locations as shown on the plans or as directed to prevent runoff spillover or to divert runoff. Construct cuts with the low end blocked with undisturbed earth to prevent erosion of hillsides. Construct sediment traps at drainage structures in conjunction with other erosion control measures as shown on the plans or as directed.
- Create a sediment basin, where required, providing 3,600 cu. ft. of storage per acre drained, or equivalent control measures for drainage locations that serve an area with 10 or more disturbed acres at one time, not including offsite areas.
- 4.4.5.2. **Excavation of Sediment and Debris.** Remove sediment and debris when accumulation affects the performance of the devices, after a rain, and when directed.
- 4.4.6. **Construction Perimeter Fence.** Construct, align, and locate fencing as shown on the plans or as directed.
- 4.4.6.1. **Installation of Posts.** Embed posts 18 in. deep or adequately anchor in rock, with a spacing of 8–10 ft.
- 4.4.6.2. **Wire Attachment.** Attach the top wire to the posts at least 3 ft. from the ground. Attach the lower wire midway between the ground and the top wire.
- 4.4.6.3. **Flag Attachment.** Attach flagging to both wire strands midway between each post. Use flagging at least 18 in. long. Tie flagging to the wire using a square knot.
- 4.4.7. **Sandbags for Erosion Control.** Construct a berm or dam of sandbags that will intercept sediment-laden stormwater runoff from disturbed areas, create a retention pond, detain sediment, and release water in sheet flow. Fill each bag with sand so that at least the top 6 in. of the bag is unfilled to allow for proper tying of the open end. Place the sandbags with their tied ends in the same direction. Offset subsequent rows of sandbags 1/2 the length of the preceding row. Place a single layer of sandbags downstream as a secondary debris trap. Place additional sandbags as necessary or as directed for supplementary support to berms or dams of sandbags or earth.
- 4.4.8. **Temporary Sediment Control Fence.** Provide temporary sediment control fence near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the fence into erosion control measures used to control sediment in areas of higher flow. Install the fence as shown on the plans, in accordance with this Section, or as directed.
- 4.4.8.1. **Installation of Posts.** Embed posts at least 18 in. deep or adequately anchor, if in rock, with a spacing of 6–8 ft., and install on a slight angle toward the runoff source.
- 4.4.8.2. **Fabric Anchoring.** Dig trenches along the uphill side of the fence to anchor 6–8 in. of fabric. Provide a minimum trench cross-section of 6 × 6 in. Place the fabric against the side of the trench and align approximately 2 in. of fabric along the bottom in the upstream direction. Backfill the trench, then hand-tamp.

4.4.8.3. **Fabric and Net Reinforcement Attachment.** Attach the reinforcement to wooden posts using staples, or to steel posts using T-clips, in at least four places equally spaced unless otherwise shown on the plans. Sewn vertical pockets may be used to attach reinforcement to end posts. Fasten the fabric to the top strand of reinforcement using hog rings or cord every 15 in. or less.

4.4.8.4. **Fabric and Net Splices.** Locate splices at a fence post with a minimum lap of 6 in. attached in at least six places equally spaced unless otherwise shown on the plans. Do not locate splices in concentrated flow areas.

Requirements for installation of used temporary sediment control fence include the following:

- fabric with minimal or no visible signs of biodegradation (weak fibers),
- fabric without excessive patching (more than one patch every 15–20 ft.),
- posts without bends, and
- backing without holes.

4.4.9. **Biodegradable Erosion Control Logs.** Install biodegradable erosion control logs near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the biodegradable erosion control logs into the erosion measures used to control sediment in areas of higher flow. Install, align, and locate the biodegradable erosion control logs as specified below, as shown on the plans, or as directed.

Secure biodegradable erosion control logs in a method adequate to prevent displacement resulting from normal rain events, to prevent damage to the logs, and as approved, such that flow is not allowed under the logs. Temporarily removing and replacing biodegradable erosion logs to facilitate daily work is allowed at the Contractor's expense.

4.4.10. **Vertical Tracking.** Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring at least 12 in. long × 2–4 in. wide × 1/2–2 in. deep. Do not exceed 12 in. between track impressions. Install continuous linear track impressions where the 12-in. length impressions are perpendicular to the slope. Vertical tracking is required on projects where soil disturbing activities have occurred, unless otherwise approved.

4.5. **Monitoring and Documentation.** Monitor the control measures daily as long as there are BMPs in place or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES CGP TXR150000. During time suspensions when work is not occurring or contract non-work days, daily inspections are not required unless a rain event has occurred. Monitoring will consist of, but is not limited to, observing, inspecting, and documenting site locations with control measures and discharge points to provide maintenance and inspection of controls in accordance with the SWP3. Keep written records of daily monitoring. Document in the daily monitoring report the control measure condition, the date of inspection, required corrective actions, the responsible person for making the corrections, and the date corrective actions were completed. Maintain records of all monitoring reports at the project site or at an approved place. Provide copies within 7 days. Together, the CRPE and an Engineer's representative will complete the Construction Stage Gate Checklist periodically as directed.

5. MEASUREMENT

5.1. **Rock Filter Dams.** Installation or removal of rock filter dams will be measured by the foot or by the cubic yard. The measured volume will include sandbags, when used.

5.1.1. **Linear Measurement.** When rock filter dams are measured by the foot, measurement will be along the centerline of the top of the dam.

5.1.2. **Volume Measurement.** When rock filter dams are measured by the cubic yard, measurement will be based on the volume of rock computed by the method of average end areas.

5.1.2.1. **Installation.** Measurement will be made in final position.

- 5.1.2.2. **Removal.** Measurement will be made at the point of removal.
- 5.2. **Temporary Pipe Slope Drains.** Temporary pipe slope drains will be measured by the foot.
- 5.3. **Temporary Paved Flumes.** Temporary paved flumes will be measured by the square yard of surface area. The measured area will include the energy dissipater at the flume outlet.
- 5.4. **Construction Exits.** Construction exits will be measured by the square yard of surface area.
- 5.5. **Earthwork for Erosion and Sediment Control.**
- 5.5.1. **Equipment and Labor Measurement.** Equipment and labor used will be measured by the actual number of hours the equipment is operated and the labor is engaged in the work.
- 5.5.2. **Volume Measurement.**
- 5.5.2.1. **In Place.**
- 5.5.2.1.1. **Excavation.** Excavation will be measured by the cubic yard in its original position and the volume computed by the method of average end areas.
- 5.5.2.1.2. **Embankment.** Embankment will be measured by the cubic yard in its final position by the method of average end areas. The volume of embankment will be determined between:
- the original ground surfaces or the surface upon which the embankment is to be constructed for the feature and
 - the lines, grades, and slopes of the accepted embankment for the feature.
- 5.5.2.2. **In Vehicles.** Excavation and embankment quantities will be combined and paid for under "Earthwork (Erosion and Sediment Control, In Vehicle)." Excavation will be measured by the cubic yard in vehicles at the point of removal. Embankment will be measured by the cubic yard in vehicles measured at the point of delivery. Shrinkage or swelling factors will not be considered in determining the calculated quantities.
- 5.6. **Construction Perimeter Fence.** Construction perimeter fence will be measured by the foot.
- 5.7. **Sandbags for Erosion Control.** Sandbags will be measured as each sandbag or by the foot along the top of sandbag berms or dams.
- 5.8. **Temporary Sediment Control Fence.** Installation or removal of temporary sediment control fence will be measured by the foot.
- 5.9. **Biodegradable Erosion Control Logs.** Installation or removal of biodegradable erosion control logs will be measured by the foot along the centerline of the top of the control logs.
- 5.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly, but will be subsidiary to this Item.

6. PAYMENT

The following will not be paid for directly, but will be subsidiary to pertinent Items:

- erosion control measures for Contractor project-specific locations (PSLs) inside and outside the right of way (e.g., construction and haul roads, field offices, equipment and supply areas, plants, and material sources);
- removal of litter, unless a separate pay item is shown on the plans;
- repair to devices and features damaged by Contractor operations;

- added measures and maintenance needed due to negligence, carelessness, lack of maintenance, and failure to install permanent controls;
- removal and reinstallation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the device; and
- minor adjustments including but not limited to plumbing posts, reattaching fabric, minor grading to maintain slopes on an erosion embankment feature, or moving small numbers of sandbags.

Stabilization of disturbed areas will be paid for under pertinent Items except vertical tacking, which will be subsidiary.

Furnishing and installing pipe for outfalls associated with sediment traps and ponds will not be paid for directly, but will be subsidiary to the excavation and embankment under this Item.

6.1. **Rock Filter Dams.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows.

6.1.1. **Installation.** Installation will be paid for as "Rock Filter Dams (Install)" of the type and slope as specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.1.2. **Removal.** Removal will be paid for as "Rock Filter Dams (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

When the Engineer directs that the rock filter dam installation or portions thereof be replaced, payment will be made at the unit price bid for "Rock Filter Dams (Remove)" and for "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.2. **Temporary Pipe Slope Drains.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Pipe Slope Drains" of the size specified. This price is full compensation for furnishing materials, removal and disposal, furnishing and operating equipment, labor, tools, and incidentals.

Removal of temporary pipe slope drains will not be paid for directly, but will be subsidiary to the installation Item. When the Engineer directs that the pipe slope drain installation or portions thereof be replaced, payment will be made at the unit price bid for "Temporary Pipe Slope Drains" of the size specified, which is full compensation for the removal and reinstallation of the pipe drain.

Earthwork required for the pipe slope drain installation, including construction of the sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

Riprap concrete or stone, when used as an energy dissipater or as a stabilized sediment trap, will be measured and paid for in accordance with Item 432.

6.3. **Temporary Paved Flumes.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Paved Flume (Install)" or "Temporary Paved Flume (Remove)." This price is full compensation for furnishing and placing materials, removal and disposal, equipment, labor, tools, and incidentals.

When the Engineer directs that the paved flume installation or portions thereof be replaced, payment will be made at the unit prices bid for "Temporary Paved Flume (Remove)" and "Temporary Paved Flume (Install)." These prices are full compensation for the removal and replacement of the paved flume and for equipment, labor, tools, and incidentals.

Earthwork required for the paved flume installation, including construction of a sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.4. **Construction Exits.** Contractor-required construction exits from off right of way locations or on right of way PSLs will not be paid for directly, but will be subsidiary to pertinent Items.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" for construction exits needed on right of way access to work areas required by the Department will be paid for at the unit price bid for "Construction Exits (Install)" of the type specified or "Construction Exits (Remove)." This price is full compensation for furnishing and placing materials, excavating, removal and disposal, cleaning vehicles, labor, tools, and incidentals.

When the Engineer directs that a construction exit or portion thereof be removed and replaced, payment will be made at the unit prices bid for "Construction Exit (Remove)" and "Construction Exit (Install)" of the type specified. These prices are full compensation for the removal and replacement of the construction exit and for equipment, labor, tools, and incidentals.

Construction of sediment traps used in conjunction with the construction exit will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.5. **Earthwork for Erosion and Sediment Control.**

- 6.5.1. **Initial Earthwork for Erosion and Sediment Control.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Erosion and Sediment Control, In Place)," "Embankment (Erosion and Sediment Control, In Place)," "Excavation (Erosion and Sediment Control, In Vehicle)," "Embankment (Erosion and Sediment Control, (In Vehicle)," or "Earthwork (Erosion and Sediment Control, In Vehicle)."

This price is full compensation for excavation and embankment, including hauling; disposal of material not used elsewhere on the project; embankments including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Sprinkling and rolling required by this Item will not be paid for directly, but will be subsidiary to this Item.

- 6.5.2. **Maintenance Earthwork for Erosion and Sediment Control for Cleaning and Restoring Control Measures.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid under a Contractor Force Account Item from invoice provided to the Engineer.

This price is full compensation for excavation, embankment, and re-grading, including dewatering for removal of accumulated sediment, and the removal of accumulated sediment in various erosion control installations as directed, hauling, and disposal of material not used elsewhere on the project; excavation for construction of erosion control features; embankments, including furnishing material from approved sources and construction of erosion control features; and equipment, labor, tools, and incidentals.

Earthwork needed to remove and obliterate erosion control features will not be paid for directly, but will be subsidiary to pertinent Items unless otherwise shown on the plans.

Sprinkling and rolling required by this Item will not be paid for directly, but will be subsidiary to this Item.

- 6.6. **Construction Perimeter Fence.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Construction Perimeter Fence." This price is full compensation for furnishing and placing the fence; digging, fence posts, wire, and flagging; removal and disposal; and materials, equipment, labor, tools, and incidentals.

Removal of construction perimeter fence will not be paid for directly, but will be subsidiary to the installation Item. When the Engineer directs that the perimeter fence installation or portions thereof be removed and replaced, payment will be made at the unit price bid for "Construction Perimeter Fence," which is full compensation for the removal and reinstallation of the construction perimeter fence.

- 6.7. **Sandbags for Erosion Control.** Sandbags will be paid for at the unit price bid for "Sandbags for Erosion Control" (of the height specified when measurement is by the foot). This price is full compensation for materials, placing sandbags, removal and disposal, equipment, labor, tools, and incidentals.
- Removal of sandbags will not be paid for directly, but will be subsidiary to the installation item. When the Engineer directs that the sandbag installation or portions thereof be replaced, payment will be made at the unit price bid for "Sandbags for Erosion Control," which is full compensation for the reinstallation of the sandbags.
- 6.8. **Temporary Sediment Control Fence.** The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid as follows.
- 6.8.1. **Installation.** Installation will be paid for as "Temporary Sediment-Control Fence (Install)." This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.
- 6.8.2. **Removal.** Removal will be paid for as "Temporary Sediment-Control Fence (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.
- 6.9. **Biodegradable Erosion Control Logs.** The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid as follows.
- 6.9.1. **Installation.** Installation will be paid for as "Biodegradable Erosion Control Logs (Install)" of the size specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, staking, proper disposal, labor, materials, tools, and incidentals.
- 6.9.2. **Removal.** Removal will be paid for as "Biodegradable Erosion Control Logs (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.
- 6.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly, but will be subsidiary to this item.