

Control	0144-01-075, ETC.
Project	F 2025(221), ETC.
Highway	US 87, ETC.
County	VICTORIA, ETC.

ADDENDUM ACKNOWLEDGMENT

Each bidder is required to acknowledge receipt of an addendum issued for a specific project. This page is provided for the purpose of acknowledging an addendum.

FAILURE TO ACKNOWLEDGE RECEIPT OF AN ADDENDUM WILL RESULT IN THE BID NOT BEING READ.

In order to properly acknowledge an addendum place a mark in the box next to the respective addendum.

- ADDENDUM NO. 1
- ADDENDUM NO. 2
- ADDENDUM NO. 3
- ADDENDUM NO. 4
- ADDENDUM NO. 5

In addition, the bidder by affixing their signature to the signature page of the proposal is acknowledging that they have taken the addendum(s) into consideration when preparing their bid and that the information contained in the addendum will be included in the contract, if awarded by the Commission or other designees.

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PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2024 SPECIFICATIONS WORK CONSISTING OF INSTALL TRAFFIC SIGNAL VICTORIA COUNTY, TEXAS, Etc.

The quantities in the proposal are approximate. The quantities of work and materials may be increased or decreased as considered necessary to complete the work as planned and contemplated.

This project is to be completed in 212 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

Provide a proposal guaranty in the form of a Cashier’s Check, Teller’s Check (including an Official Check) or Bank Money Order on a State or National Bank or Savings and Loan Association, or State or Federally chartered Credit Union made payable to the Texas Transportation Commission in the following amount:

EIGHTEEN THOUSAND (Dollars) (\$18,000)

A bid bond may be used as the required proposal guaranty. The bond form may be detached from the proposal for completion. The proposal may not be disassembled to remove the bond form. The bond must be in accordance with Item 2 of the specifications.

Any addenda issued amending this proposal and/or the plans that have been acknowledged by the bidder, become part of this proposal.

By signing the proposal the bidder certifies:

1. the only persons or parties interested in this proposal are those named and the bidder has not directly or indirectly participated in collusion, entered into an agreement or otherwise taken any action in restraint of free competitive bidding in connection with the above captioned project.
2. in the event of the award of a contract, the organization represented will secure bonds for the full amount of the contract.
3. the signatory represents and warrants that they are an authorized signatory for the organization for which the bid is submitted and they have full and complete authority to submit this bid on behalf of their firm.
4. that the certifications and representations contained in the proposal are true and accurate and the bidder intends the proposal to be taken as a genuine government record.

• **Signed:** **

(1) _____ (2) _____ (3) _____

Print Name:

(1) _____ (2) _____ (3) _____

Title:

(1) _____ (2) _____ (3) _____

Company:

(1) _____ (2) _____ (3) _____

- Signatures to comply with Item 2 of the specifications.

**Note: Complete (1) for single venture, through (2) for joint venture and through (3) for triple venture.

* **When the working days field contains an asterisk (*) refer to the Special Provisions and General Notes.**

NOTICE TO CONTRACTORS

ANY CONTRACTORS INTENDING TO BID ON ANY WORK TO BE AWARDED BY THIS DEPARTMENT MUST SUBMIT A SATISFACTORY “AUDITED FINANCIAL STATEMENT” AND “EXPERIENCE QUESTIONNAIRE” AT LEAST TEN DAYS PRIOR TO THE LETTING DATE.

UNIT PRICES MUST BE SUBMITTED IN ACCORDANCE WITH ITEM 2 OF THE STANDARD SPECIFICATIONS OR SPECIAL PROVISION TO ITEM 2 FOR EACH ITEM LISTED IN THIS PROPOSAL.

TEXAS DEPARTMENT OF TRANSPORTATION

BID BOND

KNOW ALL PERSONS BY THESE PRESENTS,

That we, (Contractor Name) _____

Hereinafter called the Principal, and (Surety Name) _____

a corporation or firm duly authorized to transact surety business in the State of Texas, hereinafter called the Surety, are held and firmly bound unto the Texas Department of Transportation, hereinafter called the Oblige, in the sum of not less than two percent (2%) of the department's engineer's estimate, rounded to the nearest one thousand dollars, not to exceed one hundred thousand dollars (\$100,000) as a proposal guaranty (amount displayed on the cover of the proposal), the payment of which sum will and truly be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the principal has submitted a bid for the following project identified as:

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NOW, THEREFORE, if the Oblige shall award the Contract to the Principal and the Principal shall enter into the Contract in writing with the Oblige in accordance with the terms of such bid, then this bond shall be null and void. If in the event of failure of the Principal to execute such Contract in accordance with the terms of such bid, this bond shall become the property of the Oblige, without recourse of the Principal and/or Surety, not as a penalty but as liquidated damages.

Signed this _____ Day of _____ 20_____

By: _____
(Contractor/Principal Name)

(Signature and Title of Authorized Signatory for Contractor/Principal)

*By: _____
(Surety Name)

(Signature of Attorney-in-Fact)

Impressed
Surety Seal
Only

*Attach Power of attorney (Surety) for Attorney-in-Fact

This form may be removed from the proposal.

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BIDDER'S CHECK RETURN

IMPORTANT

The space provided for the return address must be completed to facilitate the return of your bidder's check. Care must be taken to provide a legible, accurate, and complete return address, including zip code. A copy of this sheet should be used for each different return address.

NOTE

Successful bidders will receive their guaranty checks with the executed contract.

RETURN BIDDERS CHECK TO (PLEASE PRINT):

Control	0144-01-075, ETC.
Project	F 2025(221), ETC.
Highway	US 87, ETC.
County	VICTORIA, ETC.

IMPORTANT

PLEASE RETURN THIS SHEET IN ITS ENTIRETY

Please acknowledge receipt of this check(s) at your earliest convenience by signing below in longhand, in ink, and returning this acknowledgement in the enclosed self addressed envelope.

Check Received By: _____ Date: _____

Title: _____

For (Contractor's Name): _____

Project _____ County _____

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NOTICE TO THE BIDDER

In the space provided below, please enter your total bid amount for this project. Only this figure will be read publicly by the Department at the public bid opening.

It is understood and agreed by the bidder in signing this proposal that the total bid amount entered below is not binding on either the bidder or the Department. It is further agreed that **the official total bid amount for this proposal will be determined by multiplying the unit bid prices for each pay item by the respective estimated quantities shown in this proposal and then totaling all of the extended amounts.**

\$ _____
Total Bid Amount

Control 0001-03-030
 Project STP 2000(938)HES
 Highway SH 20
 County EL PASO

ALT	ITEM	DESC	SP	Bid Item Description	Unit	Quantity	Bid Price	Amount	Seq
	I04	509	X	REMOV CONC (SDWLK)	MSY	266.400	\$10.000	\$2,664.00	1
						Total Bid Amount	\$2,664.00		

Signed _____
 Title _____
 Date _____

Additional Signature for Joint Venture:

Signed _____
 Title _____
 Date _____

EXAMPLE OF BID PRICES SUBMITTED BY COMPUTER PRINTOUT

EXAMPLE

EXAMPLE

EXAMPLE

EXAMPLE

EXAMPLES

BID PRICES SUBMITTED BY HAND WRITTEN FORMAT

ALT	ITEM-CODE			UNIT BID PRICE <u>ONLY</u> WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC NO	S.P. NO.				
	190	026		RED OAK 1 1/2 - 1 3/4 GAL BB	EA	9.000	1
					L	E	

Unit price for each plant in place

	249	014		FLEX BASE(DEL)(DENSOT)(TY A GR4 CL2)	TON	56,787.00	14
					L	E	

Unit price for each ton of Flexible Base

	430	001	001	CL A CONC FOR EXT STR (CULV)	CY	45.000	27
					L	E	

Unit price for each cubic yard of Concrete

	610	007	001	RDWY ILL ASSEM(TY ST 50T-8-8)(.4 KW)S	EA	13.000	7
					L	E	

Unit price of each Roadway Illumination Assembly

EXAMPLE

EXAMPLE

EXAMPLE

EXAMPLE

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ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	104	7013		REMOV CONC (SIDEWALK, RAMP OR SUP) DOLLARS and CENTS	SY	73.000	1
	432	7019		RIPRAP (STONE TY F)(GROUT)(6 IN) DOLLARS and CENTS	CY	31.000	2
	500	7001		MOBILIZATION DOLLARS and CENTS	LS	1.000	3
	502	7001		BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	15.000	4
	503	7002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	5
	505	7001		TMA (STATIONARY) DOLLARS and CENTS	DAY	370.000	6
	529	7009		CONC CURB & GUTTER (TY II) DOLLARS and CENTS	LF	139.000	7
	531	7002		CONC SIDEWALKS (5") DOLLARS and CENTS	SY	112.000	8
	531	7015		CURB RAMPS (TY 1) DOLLARS and CENTS	SY	95.000	9
	531	7016		CURB RAMPS (TY 2) DOLLARS and CENTS	SY	49.000	10
	531	7020		CURB RAMPS (TY 7) DOLLARS and CENTS	SY	12.000	11

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	618	7030		CONDT (PVC) (SCH 40) (2") DOLLARS and CENTS	LF	550.000	12
	618	7031		CONDT (PVC) (SCH 40) (2") (BORE) DOLLARS and CENTS	LF	1,210.000	13
	618	7040		CONDT (PVC) (SCH 40) (4") DOLLARS and CENTS	LF	785.000	14
	618	7041		CONDT (PVC) (SCH 40) (4") (BORE) DOLLARS and CENTS	LF	1,210.000	15
	620	7007		ELEC CONDR (NO.8) BARE DOLLARS and CENTS	LF	3,420.000	16
	620	7008		ELEC CONDR (NO.8) INSULATED DOLLARS and CENTS	LF	3,390.000	17
	620	7009		ELEC CONDR (NO.6) BARE DOLLARS and CENTS	LF	55.000	18
	620	7010		ELEC CONDR (NO.6) INSULATED DOLLARS and CENTS	LF	95.000	19
	621	7002		TRAY CABLE (3 CONDR) (12 AWG) DOLLARS and CENTS	LF	615.000	20
	624	7008		GROUND BOX TY D (162922)W/APRON DOLLARS and CENTS	EA	12.000	21
	628	7147		ELC SRV TY D 120/240 060(NS)SS(E)PS(U) DOLLARS and CENTS	EA	3.000	22
	636	7001		ALUMINUM SIGNS (TY A) DOLLARS and CENTS	SF	45.000	23

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	644	7025		IN SM RD SN SUP&AM TYS80(1)SA(P) DOLLARS and CENTS	EA	49.000	24
	644	7065		RELOCATE SM RD SN SUP&AM TY 10BWG DOLLARS and CENTS	EA	1.000	25
	644	7073		REMOVE SM RD SN SUP&AM DOLLARS and CENTS	EA	3.000	26
	647	7003		REMOVE LRSA DOLLARS and CENTS	EA	2.000	27
	666	7024		REFL PAV MRK TY I (W)8"(SLD)(100MIL) DOLLARS and CENTS	LF	205.000	28
	666	7172		RE PM TY II (W) 6" (BRK) DOLLARS and CENTS	LF	20.000	29
	666	7179		RE PM TY II (W) 8" (SLD) DOLLARS and CENTS	LF	205.000	30
	666	7213		RE PM TY II (Y) 6" (SLD) DOLLARS and CENTS	LF	64.000	31
	666	7408		REFL PAV MRK TY I (W)6"(BRK)(100MIL) DOLLARS and CENTS	LF	20.000	32
	666	7423		REFL PAV MRK TY I (Y)6"(SLD)(100MIL) DOLLARS and CENTS	LF	64.000	33
	668	7089		PREFAB PM TY C (W)(24")(SLD) DOLLARS and CENTS	LF	753.000	34
	672	7002		REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	12.000	35

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	7004		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	6.000	36
	677	7001		ELIM EXT PM & MRKS (4") DOLLARS and CENTS	LF	4.000	37
	677	7006		ELIM EXT PM & MRKS (12") DOLLARS and CENTS	LF	779.000	38
	677	7008		ELIM EXT PM & MRKS (24") DOLLARS and CENTS	LF	211.000	39
	680	7002		INSTALL HWY TRF SIG (ISOLATED) DOLLARS and CENTS	EA	3.000	40
	680	7004		REMOVING TRAFFIC SIGNALS DOLLARS and CENTS	EA	3.000	41
	682	7001		VEH SIG SEC (12")LED(GRN) DOLLARS and CENTS	EA	24.000	42
	682	7002		VEH SIG SEC (12")LED(GRN ARW) DOLLARS and CENTS	EA	12.000	43
	682	7003		VEH SIG SEC (12")LED(YEL) DOLLARS and CENTS	EA	24.000	44
	682	7004		VEH SIG SEC (12")LED(YEL ARW) DOLLARS and CENTS	EA	24.000	45
	682	7005		VEH SIG SEC (12")LED(RED) DOLLARS and CENTS	EA	24.000	46
	682	7006		VEH SIG SEC (12")LED(RED ARW) DOLLARS and CENTS	EA	12.000	47

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	682	7018		PED SIG SEC (LED)(COUNTDOWN) DOLLARS and CENTS	EA	16.000	48
	682	7042		BACKPLATE W/REF BRDR(3 SEC)(VENT)ALUM DOLLARS and CENTS	EA	24.000	49
	682	7043		BACKPLATE W/REF BRDR(4 SEC)(VENT)ALUM DOLLARS and CENTS	EA	12.000	50
	684	7031		TRF SIG CBL (TY A)(14 AWG)(5 CONDR) DOLLARS and CENTS	LF	4,700.000	51
	684	7033		TRF SIG CBL (TY A)(14 AWG)(7 CONDR) DOLLARS and CENTS	LF	745.000	52
	684	7046		TRF SIG CBL (TY A)(14 AWG)(20 CONDR) DOLLARS and CENTS	LF	1,685.000	53
	684	7079		TRF SIG CBL (TY C)(12 AWG)(2 CONDR) DOLLARS and CENTS	LF	3,500.000	54
	687	7001		PED POLE ASSEMBLY DOLLARS and CENTS	EA	13.000	55
	688	7001		PED DETECT PUSH BUTTON (APS) DOLLARS and CENTS	EA	16.000	56
	688	7003		PED DETECTOR CONTROLLER UNIT DOLLARS and CENTS	EA	2.000	57
	6007	7001		BBU SYSTEM (EXTERNAL BATTERY CABI- NET) DOLLARS and CENTS	EA	3.000	58

PROJECT F 2025(221) , ETC.
 COUNTY VICTORIA , ETC.

Proposal Sheet
 TxDOT
 FORM 234

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	6017	7014		VDS (HVDS) (VIVDS AND RVDS) DOLLARS and CENTS	EA	3.000	59

CERTIFICATION OF INTEREST IN OTHER BID PROPOSALS FOR THIS WORK

By signing this proposal, the bidding firm and the signer certify that the following information, as indicated by checking "Yes" or "No" below, is true, accurate, and complete.

- A. Quotation(s) have been issued in this firm's name to other firm(s) interested in this work for consideration for performing a portion of this work.

_____ YES

_____ NO

- B. If this proposal is the low bid, the bidder agrees to provide the following information prior to award of the contract.

1. Identify firms which bid as a prime contractor and from which the bidder received quotations for work on this project.
2. Identify all the firms which bid as a prime contractor to which the bidder gave quotations for work on this project.

DISCLOSURE OF LOBBYING ACTIVITIES

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

<p>1. Type of Federal Action:</p> <ul style="list-style-type: none"> a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance 	<p>2. Status of Federal Action:</p> <ul style="list-style-type: none"> a. bid/offer/application b. initial award c. post-award 	<p>3. Report Type:</p> <ul style="list-style-type: none"> a. initial filing b. grant <p style="margin-left: 20px;">For material change only: year _____ quarter _____ date of last report _____</p>
<p>4. Name and Address of Reporting Entity:</p> <p>? Prime ? Subawardee</p> <p style="margin-left: 40px;">Tier _____, if known:</p> <p>Congressional District, if known:</p>		<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known:</p>
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable: _____</p>	
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p> <p>\$ _____</p>	
<p>10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):</p>		<p>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):</p>
<p>(attach Continuation Sheet(s) SF-LLL-A, if necessary)</p>		
<p>11. Amount of Payment (check all that apply):</p> <p>\$ _____ actual planned</p>	<p>13. Type of Payment (check all that apply):</p> <ul style="list-style-type: none"> a. retainer b. one-time fee c. commission d. contingent fee e. deferred f. other; specify: _____ 	
<p>12. Form of Payment (check all that apply)</p> <ul style="list-style-type: none"> a. cash b. in-kind; specify: nature _____ value _____ 		
<p>14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:</p> <p>(attach Continuation Sheet(s) SF-LLL-A, if necessary)</p>		
<p>15. Continuation Sheet(s) SF-LLL-A attached: ? Yes ? No</p>		
<p>16. 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.</p>	<p>Signature: _____</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Telephone No: _____ Date: _____</p>	
<p>FEDERAL USE ONLY</p>		<p>Authorized for Local Reproduction Standard Form - LLL</p>

INSTRUCTIONS FOR COMPLETION OF SF-LLL, 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. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. 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 follow-up 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 or 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; Invitation for Bid (IFB) number; grant announcement number, the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include 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. (a) Enter the full name, address, city, state and zip code of the lobbying entity 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. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 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, D.C. 20503.

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB

0348-0046

CONTINUATION SHEET

Reporting Entity: _____ Page _____ of _____

CONTRACTOR'S ASSURANCE

(Subcontracts-Federal Aid Projects)

By signing this proposal, the contractor is giving assurances that all subcontract agreements will incorporate the Standard Specification and Special Provisions to Section 9.9., Payment Provisions for Subcontractors, all subcontract agreements exceeding \$2,000 will incorporate the applicable Wage Determination Decision, and all subcontract agreements will incorporate the following:

Special Provision	Certification of Nondiscrimination in Employment
Special Provision	Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)
Special Provision	Standard Federal Equal Employment Opportunity
Construction	Construction Specifications (Executive Order 11246)
Form FHWA 1273	Required Contract Provisions Federal-aid Construction Contracts (Form FHWA 1273 must also be physically attached to subcontracts and all lower-tier subcontracts)
Special Provision	Nondiscrimination (Include provisions of Sections 3.1 – 3.6 in all subcontracts and agreements for materials)
Special Provision	Cargo Preference Act Requirements in Federal-Aid Contracts
Special Provision	Disadvantaged Business Enterprise in Federal-Aid Contracts

ENGINEER SEAL

Control 0144-01-075, ETC.
Project F 2025(221), ETC.
Highway US 87, ETC.
County VICTORIA, ETC.

The enclosed Texas Department of Transportation Specifications, Special Specifications, Special Provisions, General Notes and Specification Data in this document have been selected by me, or under my responsible supervision as being applicable to this project. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act.



The seal appearing on this document was authorized by
Robert Dean Astin, P.E.
AUGUST 28, 2024

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

GENERAL NOTES:

GENERAL:

Contractor questions on this project are to be addressed to the following individual(s):

Clayton Harris Clayton.Harris@txdot.gov
James Janak James.Janak@txdot.gov

Contractor questions will be accepted through email, phone, and in person by the above individuals.

Questions may be submitted via the Letting Pre-Bid Q&A web page. This webpage can be accessed from the Notice to Contractors dashboard located at the following Address:
<https://tableau.txdot.gov/views/ProjectInformationDashboard/NoticetoContractors>

All contractor questions will be reviewed by the Engineer. All questions and any corresponding responses that are generated will be posted through the same Letting Pre-Bid Q&A web page.

The Letting Pre-Bid Q&A web page for each project can be accessed by using the dashboard to navigate to the project you are interested in by scrolling or filtering the dashboard using the controls on the left. Hover over the blue hyperlink for the project you want to view the Q&A for and click on the link in the window that pops up.

Do not work on the roadway before sunrise or after sunset unless otherwise approved.

Leave all traffic lanes open to traffic during non-working hours unless otherwise approved.

Leave all intersecting roadways, side streets, and entrances open during construction unless otherwise approved. Should there be a request to restrict access for such reasons as parallel culvert replacement, reconstruction, etc., approval will be required 48 hours in advance and the contractor will be required to coordinate satisfactorily with any affected property owners.

The Department will provide the cylinder testing machine for this project. Deliver the test specimens to the engineer's curing facilities as directed.

Do not clean out concrete trucks within the right of way.

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

The contractor's attention is directed to the overhead powerline near the project location. Prior to the pre-construction meeting, the contractor is required to initiate and conduct a coordination meeting with the Engineer and the power company representative(s). Construction clearance limitations, de-energization options, and advanced notice requirements will need to be determined and agreed upon prior to starting any work on the project.

ITEM 5: CONTROL OF THE WORK

The Contractor's attention is directed to the fact that several companies have existing underground facilities located within or near the project limits. These companies include:

- 1) AT&T/SUDDENLINK
- 2) AT&T
- 3) CENTERPOINT
- 4) WINDSTREAM
- 5) CITY OF VICTORIA

Excavation and/or construction is prohibited without prior notification to these companies.

Verify all utilities in the field. Contact the Texas Excavation Safety Systems (TESS) of DIGTESS at 1-800-344-8377 or the area utility companies for exact locations at least 48 hours prior to any work that might affect present utilities.

ITEM 6: CONTROL OF MATERIALS

The Buy America Material Classification Sheet is located at the below link.

<https://www.txdot.gov/business/resources/materials/buy-america-material-classification-sheet.html> for clarification on material categorization.

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

The Department has determined that a USACE Nationwide or Individual Permit is not necessary for the project since all work shall be conducted outside the USACE jurisdictional areas. Any impacts to these jurisdictional areas by the Contractor without a USACE permit will be the responsibility of the Contractor. If the Contractor deems it necessary to impact the USACE jurisdictional areas, then it becomes the Contractor's entire responsibility to consult with the USACE pertaining to the need for a Nationwide or Individual Permit. TXDOT will then hold the Contractor responsible for following all conditions of the approved permit.

No significant traffic generator events identified.

If the contractor proposes work beyond the TxDOT obtained permit limitations, the contractor is responsible for additional costs, delays, and obtaining new or revised permits prior to construction.

ITEM 8: PROSECUTION AND PROGRESS

The 90 day convenience delayed start special provision is for allowing the contractor additional time for mobilizing crews and equipment to start this project.

Provide progress schedule as a Bar Chart.

All the necessary materials needed to finish work at one particular work location should be in stock before starting the work at that particular location. Electrical service delays are not reasons to suspend any time. The contractor is allowed to work on only the electrical service prior to setting barricades if work is performed using appropriate TCP. Engineer may suspend time if signal acceptance is pending work by a third party but no suspension if delay is due to an electric provider.

ITEM 502: BARRICADES, SIGNS, AND TRAFFIC HANDLING

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Project Number:

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County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

Law enforcement assistance for this project will be required, as approved, for major traffic control changes and lane closures. Coordinate with local law enforcement and arrange for law enforcement in a marked vehicle as approved by the Engineer. Complete the daily tracking form provided by the department, including all signatures, and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided.

Use WZ(RS)-22 in conjunction with TCP(2-2), TCP(2-4) and Yoakum District standard (TCP-Left Turn Lane Closure.

Use TCP(2-2b) for one-lane, two-way traffic control.

When using TCP(2-2b), channelizing devices may be omitted during base, subgrade and seal coat operations unless otherwise directed. Flaggers will be required at public intersections when channelizing devices are omitted.

When using TCP(2-2b), arrow boards, displaying the caution mode, may be used to enhance the flagger stations. If used, place the arrow board in advance of the flagger station a distance of $\frac{1}{2}X$, the sign spacing distance shown on BC(2). Use arrow boards as shown on BC(7).

When using TCP(2-2b), the temporary 24" stop line and the CW16-2P plaques may be omitted.

When using TCP(2-2b), an additional "Road Work Ahead" and "Be Prepared To Stop" signs will be required on each end of the lane closure unless otherwise approved.

Provide trail and lead vehicles when using TCP(3-1) or TCP(3-3).

Utilize TCP(3-3) for sweeping operations or for installing and removing tabs or raised pavement markers.

Provide suitable warning lights mounted high enough to be visible from all directions on all construction equipment, including pilot vehicles, and operate warning lights when the equipment is within the right of way. Equip other equipment such as trucks, trailers, autos, etc., with emergency flashers and use emergency flashers while within the work area.

Place plastic drums along the gutter line at curb ramp locations during non-working hours and barricades with "Sidewalk Closed" signs while ramps and/or sidewalks are under construction.

Project Number:

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County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

ITEM 503: PORTABLE CHANGEABLE MESSAGE SIGN

Provide Portable Changeable Message Signs (PCMS) for the duration of the project. Locations and messages or other miscellaneous uses of PCMS, shall be as approved or directed by the Engineer.

ITEM 505: TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)

The TMA/TA used for installation/removal of traffic control for a work area will be subsidiary to the TMA/TA used to perform the work.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

The storm water pollution prevention plan (SW3P) for this project will consist of utilizing existing vegetation. The disturbed area is less than one acre and use of erosion control measures is not anticipated. If physical conditions encountered at the job site require necessary controls, BMP installation, maintenance, and removal will be paid as extra work on a force account basis per Articles 4.4 and 9.7.

ITEM 529: CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER

Provide openings in the gutter at curb inlets for drainage, before the final course is laid as directed.

Taper the curb or curb and gutter from 5 3/4" to 0" in the last three feet when changing from a curb or curb and gutter section to an open section.

ITEM 531: SIDEWALKS

Reinforce concrete sidewalks with minimum No. 3 reinforcing bars spaced at a maximum of 12 inches transversely and a maximum of 24 inches longitudinally.

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

ITEM 618: CONDUIT

Provide as-built or certified as-installed plans, including GPS coordinates, for all conduit to establish the locations, vertical elevations, and horizontal alignments based on the department's survey datum. The plans shall also show the relationship to existing highway facilities and the right of way line. Submit to the engineer on an 11x17 inch scaled plan sheet.

All conduit elbows and rigid metal extensions required when installing PVC conduit systems, are subsidiary to the various bid items.

Repair any pavement damaged by the boring operations. Repair method shall be as approved by the Engineer. This will be considered subsidiary to this item.

Conduit bore pits a minimum of five feet from the edge of the base or pavement. Close the bore pit holes during non-working hours. Consider payment for bored conduit as the width of the roadway plus five (5) feet on each side of roadway.

Unless shown otherwise on the plans, install the underground conduit a minimum of 30 in. deep. Place conduit under driveway or roadways a minimum of 30 in. below the pavement surface.

When backfilling bore pits, ensure that the conduit is not damaged during installation or due to settling backfill material. Compact select backfill in three equal lifts to the bottom of the conduit, or if using sand, place it in 2 in. above the conduit. Ensure backfill density is equal to that of the existing soil. Prevent material from entering the conduit.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

Use Class B concrete for all small roadside sign assembly concrete footings.

The exact location of the foundations to be placed will be determined in the field by the Engineer.

Drill the holes in the signs carefully as to not damage the reflective sheeting of the signs.

Slip bases with set screws/bolts will not be allowed.

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

ITEM 666: REFLECTORIZED PAVEMENT MARKINGS

Provide Type I pavement markings in accordance with this item. The requirements of this item are supplemented with the following provision: Place Type I pavement markings with a ribbon-gun application. All other provisions remain in effect.

ITEM 677: ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

Remove existing stripe with the water blasting method.

ITEM 680: HIGHWAY TRAFFIC SIGNALS

The controller assembly and controller cabinet (except the foundation) will be provided by the department. These items will be available to be picked up at the Yoakum District Office (403 Huck Street, Yoakum, Texas.)

Yoakum District Traffic Shop
Phone: 361-293-4300

This project shall consist of the installation of all of the materials necessary for complete signal systems as follows:

1. Provide submittal literature for all traffic signal equipment before installation.
 - Review by the Engineer does not relieve the Contractor of his responsibilities to meet the requirements of the specifications and plans.
2. Furnish, and install all required materials, incidentals and any equipment necessary to make a **fully operational** traffic signal, including pedestrian elements.
3. Provide a qualified technician and vendor representatives on the project site to place the traffic signals in full operation. The contractor will be responsible for all fees associated with have the vendor on-site, include the controller assembly and cabinet vendor.

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

4. Provide vibration dampers for mast arms 28-feet long and longer. Use dampers 18-in by 48-in for arms up to 48-ft long, and 16-in by 66-in for longer mast arms. Install using Astro-sign Brac, Signfix aluminum channel, or equal, at a maximum of 3-feet from the end of the mast arm.
5. Where work requires the removal of power from the controller and cabinet assembly, erect temporary stop sign panels. Remove the stop sign panels after the traffic signals are in operation.
6. **Radar Detection Zones Setup:** The signal technicians from the Yoakum District Signal Shop are responsible for verification of vehicle detection zones set by the Contractor. Contact The Yoakum District Signal Shop at 361-293-4300 to coordinate a suitable meeting time to verify proper detection device locations.
7. The Department will not assume responsibility for the maintenance of the traffic signals until the project is completed and accepted.
8. Wire the signal installation to operate in accordance with phase diagrams in these plans. Timing and phasing will be changed and maintained by the Yoakum District Traffic Engineering Group during all phases of construction. A copy of all revisions to the original timing and phasing plans will be delivered to the Yoakum Traffic Engineering group and one copy is to stay in the controller cabinet at the completion of the project.
9. Place the traffic signal into operation after all required striping is complete and all conflicting signing is removed.
10. **Project Inspection:** For electrical project inspection, the Area Office and Chief Inspector should contact the Yoakum District Signal Shop in advance of needed inspections. At the time of the final electrical inspection, the Yoakum District Signal Shop office will create a punch list of discrepancies to be corrected and/or repaired before signal is put into flash mode. Upon the satisfactory completion of repairs or corrections, the signals shall operate in a flashing mode for seven days, unless otherwise approved prior to the beginning of the test period for full signal operation.
11. **Signal Turn-On:** Notify the Yoakum District Signal Shop 361-293-4300 a minimum of two (2) weeks in advance of the signal turn on. Signal technicians from the Yoakum Signal Shop must be present when the signals are placed in full operation. Unless otherwise

Project Number:

Sheet:

County: VICTORIA

Control: 0144-01-075, ETC

Highway: US 87, ETC

directed or approved, place the signal in full operation between 9:00 A.M. - 12:00 (NOON) on Tuesdays or Wednesdays only.

12. **Test Period for Signals:** The signals shall operate continuously for a minimum of 30 calendar days in a satisfactory manner. Equipment failures during these 30 days will cause the test period to start over.
13. During the thirty-day test period, the Yoakum District Signal Shop will be the First Responders to all trouble calls. They will, in turn contact the Contractor. Provide qualified personnel to respond to these and all trouble calls. Repair and diagnose any malfunctions to signal equipment supplied for the project. Provide a local telephone number, not subject to frequent changes and available to receive calls on a 24-hour basis. Respond to reported calls within a reasonable travel time, (i.e. from a Bay City area address), but not more than 2 hours maximum. Make appropriate repairs within 24 hours. Place a logbook in each controller cabinet and keep a record of each trouble call reported. Notify the Engineer of each trouble call. The error log in the conflict monitor shall not be cleared during the thirty-day test period without approval. If it is necessary to replace equipment, such as a controller, in order to return the signals to normal operation, TxDOT will replace the equipment with loaned equipment until the original equipment is repaired and then replaced.
14. Provide 240 Watt Equivalent LED luminaire fixtures where called for in the signal plans.

Project Number:

Sheet:

County: DEWITT,ETC

Control:0913-00-138, Etc.

Highway:VARIOUS

GENERAL NOTES:

GENERAL:

Contractor questions on this project are to be addressed to the following individual(s):

Clayton Harris Clayton.Harris@txdot.gov

James Janak James.Janak@txdot.gov

Contractor questions will be accepted through email, phone, and in person by the above individuals.

Questions may be submitted via the Letting Pre-Bid Q&A web page. This webpage can be accessed from the Notice to Contractors dashboard located at the following Address:
<https://tableau.txdot.gov/views/ProjectInformationDashboard/NoticetoContractors>

All contractor questions will be reviewed by the Engineer. All questions and any corresponding responses that are generated will be posted through the same Letting Pre-Bid Q&A web page.

The Letting Pre-Bid Q&A web page for each project can be accessed by using the dashboard to navigate to the project you are interested in by scrolling or filtering the dashboard using the controls on the left. Hover over the blue hyperlink for the project you want to view the Q&A for and click on the link in the window that pops up.

Do not work on the roadway before sunrise or after sunset unless otherwise approved.

Leave all traffic lanes open to traffic at night, weekends and holidays unless otherwise approved.

Do not cross the median except at existing crossovers.

Do not store equipment or stockpile material in the median overnight unless otherwise approved.

The Department will provide the cylinder testing machine for this project. Deliver the test specimens to the engineer's curing facilities as directed.

Do not work after 12:00 Noon on Fridays except for pavement marking operations unless otherwise directed.

Do not clean out concrete trucks within the right of way.

Project Number:

Sheet:

County: DEWITT,ETC

Control:0913-00-138, Etc.

Highway:VARIOUS

The contractor's attention is directed to the overhead powerline near the project location. Prior to the pre-construction meeting, the contractor is required to initiate and conduct a coordination meeting with the Engineer and the power company representative(s). Construction clearance limitations, de-energization options, and advanced notice requirements will need to be determined and agreed upon prior to starting any work on the project.

ITEM 6: CONTROL OF MATERIALS

The Buy America Material Classification Sheet is located at the below link. <https://www.txdot.gov/business/resources/materials/buy-america-material-classification-sheet.html> for clarification on material categorization.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

The Department has determined that a USACE Nationwide or Individual Permit is not necessary for the project since all work shall be conducted outside the USACE jurisdictional areas. Any impacts to these jurisdictional areas by the Contractor without a USACE permit will be the responsibility of the Contractor. If the Contractor deems it necessary to impact the USACE jurisdictional areas, then it becomes the Contractor's entire responsibility to consult with the USACE pertaining to the need for a Nationwide or Individual Permit. TXDOT will then hold the Contractor responsible for following all conditions of the approved permit.

If the contractor proposes work beyond the TxDOT obtained permit limitations, the contractor is responsible for additional costs, delays, and obtaining new or revised permits prior to construction.

No significant traffic generator events identified.

ITEM 8: PROSECUTION AND PROGRESS

The 90 day convenience delayed start special provision is for allowing the contractor additional time for mobilizing crews and equipment to start this project.

Provide progress schedule as a Bar Chart.

Project Number:

Sheet:

County: DEWITT,ETC

Control:0913-00-138, Etc.

Highway:VARIOUS

ITEM 502: BARRICADES, SIGNS, AND TRAFFIC HANDLING

The Contractor Force Account "Safety Contingency" that has been established for this project is intended to be utilized for work zone enhancements, to improve the effectiveness of the Traffic Control Plan, that could not be foreseen in the project planning and design stage. These enhancements will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent traffic management reviews on the project. The Engineer may choose to use existing bid items if it does not slow the implementation of enhancement.

Use WZ(RS)-22 in conjunction with TCP(2-2), TCP(2-4), or TCP(2-6) .

Use TCP(2-2b) for one-lane, two-way traffic control.

When using TCP(2-2b), a pilot car is required to lead traffic through the work space with or without channelizing devices on the center line unless otherwise approved.

When using TCP(2-2b), channelizing devices may be omitted during base, subgrade and seal coat operations unless otherwise directed. Flaggers will be required at public intersections when channelizing devices are omitted.

When using TCP(2-2b), arrow boards, displaying the caution mode, may be used to enhance the flagger stations. If used, place the arrow board in advance of the flagger station a distance of $\frac{1}{2}X$, the sign spacing distance shown on BC(2). Use arrow boards as shown on BC(7).

When using TCP(2-2b), the temporary 24" stop line and the CW16-2P plaques may be omitted.

When using TCP(2-2b), an additional "Road Work Ahead" and "Be Prepared To Stop" signs will be required on each end of the lane closure unless otherwise approved.

Project limit traffic control devices will not be required for this project.

Provide suitable warning lights mounted high enough to be visible from all directions on all construction equipment, including pilot vehicles, and operate warning lights when the equipment is within the right of way. Equip other equipment such as trucks, trailers, autos, etc., with emergency flashers and use emergency flashers while within the work area.

Project Number:

Sheet:

County: DEWITT,ETC

Control:0913-00-138, Etc.

Highway:VARIOUS

ITEM 505: TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)

The TMA/TA used for installation/removal of traffic control for a work area will be subsidiary to the TMA/TA used to perform the work.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

The storm water pollution prevention plan (SW3P) for this project will consist of utilizing existing vegetation. The disturbed area is less than one acre and use of erosion control measures is not anticipated. If physical conditions encountered at the job site require necessary controls, BMP installation, maintenance, and removal will be paid as extra work on a force account basis per Articles 4.4 and 9.7.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

Use Class B concrete for all small roadside sign assembly concrete footings.

The exact location of the foundations to be placed will be determined in the field by the Engineer.

Drill the holes in the signs carefully as to not damage the reflective sheeting of the signs.

CONTROL : 0144-01-075, ETC
PROJECT : F 2025(221), ETC
HIGHWAY : US 87, ETC
COUNTY : VICTORIA, ETC

TEXAS DEPARTMENT OF TRANSPORTATION

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF
----- TRANSPORTATION SEPTEMBER 1, 2024.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

- ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
- ITEM 104 REMOVING CONCRETE
 - ITEM 432 RIPRAP <247><420><421><431><440>
 - ITEM 500 MOBILIZATION
 - ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING <503><505><510>
 - ITEM 503 PORTABLE CHANGEABLE MESSAGE SIGN
 - ITEM 505 TRUCK-MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)
 - ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER <360>
<420><421><440>
 - ITEM 531 SIDEWALKS <104><360><420><421><440><530>
 - ITEM 618 CONDUIT <400><445><476>
 - ITEM 620 ELECTRICAL CONDUCTORS <610><628>
 - ITEM 621 TRAY CABLE <620>
 - ITEM 624 GROUND BOXES <420><421><432><440><618><620>
 - ITEM 628 ELECTRICAL SERVICES <441><445><449><618><620><627><656>
 - ITEM 636 SIGNS
 - ITEM 644 SMALL ROADSIDE SIGN ASSEMBLIES <421><440><441><442><445>
<636><656>
 - ITEM 647 LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES <416><421>
<440><441><442><445><636>
 - ITEM 666 RETROREFLECTORIZED PAVEMENT MARKINGS <316><502><662><667>
<677><678>
 - ITEM 668 PREFABRICATED PAVEMENT MARKINGS AND RUMBLE STRIPS <678>
 - ITEM 672 RAISED PAVEMENT MARKERS <677><678>
 - ITEM 677 ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS <300>
<302><315><316>
 - ITEM 680 HIGHWAY TRAFFIC SIGNALS <416><450><531><610><618><620>
<621><624><625><628><636><656><682><684><686><687><688>
 - ITEM 682 VEHICLE AND PEDESTRIAN SIGNAL HEADS
 - ITEM 684 TRAFFIC SIGNAL CABLES <625><680><690>

ITEM 687 PEDESTAL POLE ASSEMBLIES <445><449><656><682><688>
ITEM 688 PEDESTRIAN DETECTORS AND VEHICLE LOOP DETECTORS <618>
<624><682><684>

SPECIAL PROVISIONS: SPECIAL PROVISIONS WILL GOVERN AND TAKE
----- PRECEDENCE OVER THE SPECIFICATIONS ENUMERATED
HEREON WHEREVER IN CONFLICT THEREWITH.

REQUIRED CONTRACT PROVISIONS. ALL FEDERAL-AID PROJECTS (REV. 5-12)
(FORM FHWA 1273)

WAGE RATES

SPECIAL PROVISION "NONDISCRIMINATION" (000---001)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"
(000---002)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFIC" (000---003)
SPECIAL PROVISION "ONTHEJOB TRAINING PROGRAM" (000---004)
SPECIAL PROVISION "AMERICANS WITH DISABILITIES ACT CURB RAMP WORKSHOP
" (000---006)
SPECIAL PROVISION "CARGO PREFERENCE ACT REQUIREMENTS IN FEDERAL AID
CONTRA" (000---007)
SPECIAL PROVISION "NOTICE OF CONTRACTOR PERFORMANCE EVALUATIONS"
(000---016)
SPECIAL PROVISION "CERTIFICATE OF INTERESTED PARTIES (FORM 1295)"
(000---017)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000---018)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYEMENT OPPORTUNITY (EXECUTIVE O
RDER 11" (000---020)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERALAID"
(000---022)
SPECIAL PROVISION TO ITEM 6 (006---001)
SPECIAL PROVISION TO ITEM 8 (008---005)

SPECIAL SPECIFICATIONS:

ITEM 6007 BATTERY BACK-UP SYSTEM FOR SIGNAL CABINETS <420><620>
ITEM 6017 MULTI-SENSOR VEHICLE DETECTION SYSTEM FOR SIGNALIZED
INTERSECTION

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH
----- PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER
PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-
LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL
PROVISIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFI-
CATIONS FOR THIS PROJECT.

Control 0144-01-075, ETC.

Project F 2025(221), ETC.

Highway US 87, ETC.

County VICTORIA, ETC.

**DISADVANTAGED BUSINESS ENTERPRISE
REQUIREMENTS**

The following goal for disadvantaged business enterprises is established:

**DBE
0.0%**

CHILD SUPPORT STATEMENT

Under Section 231.006, Family Code, the vendor or applicant certifies that the individual or business entity named in this contract, bid, or application is not ineligible to receive the specified grant, loan, or payment and acknowledges that this contract may be terminated and payment may be withheld if this certification is inaccurate.

CONFLICT OF INTEREST CERTIFICATION

Pursuant to Texas Government Code Section 2261.252(b), the Department is prohibited from entering into contracts in which Department officers and employees have a financial interest.

By signing the Contract, the Contractor certifies that it is not prohibited from entering into a Contract with the Department as a result of a financial interest as defined under Texas Government Code Section 2261.252(b), and that it will exercise reasonable care and diligence to prevent any actions or conditions that could result in a conflict of interest with the Department.

The Contractor also certifies that none of the following individuals, nor any of their family members within the second degree of affinity or consanguinity, owns 1% or more interest or has a financial interest as defined under Texas Government Code Section 2261.252(b) in the Contractor:

- Any member of the Texas Transportation Commission; and
- The Department's Executive Director, General Counsel, Chief of Procurement and Field Support Operations, Director of Procurement, and Director of Contract Services.

Violation of this certification may result in action by the Department.

E-VERIFY CERTIFICATION

Pursuant to Texas Transportation Code §223.051, all TxDOT contracts for construction, maintenance, or improvement of a highway must include a provision requiring Contractors and subcontractors to use the U.S. Department of Homeland Security's E-Verify system to determine employment eligibility. By signing the contract, the Contractor certifies that prior to the award of the Contract:

- the Contractor has registered with and will, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of the Contract to determine the eligibility of all persons hired to perform duties within Texas during the term of the agreement; and
- the Contractor will require that all subcontractors also register with and, to the extent permitted by law, utilize the United States Department of Homeland Security's E-Verify system during the term of the subcontract to determine the eligibility of all persons hired to perform duties within Texas during the term of the agreement.

Violation of this requirement constitutes a material breach of the Contract, subjects a subcontractor to removal from the Contract, and subjects the Contractor or subcontractors to possible sanctions in accordance with Title 43, Texas Administrative Code, Chapter 10, Subchapter F, "Sanctions and Suspension for Ethical Violations by Entities Doing Business with the Department."

Certification Regarding Disclosure of Public Information

Pursuant to Subchapter J, Chapter 552, Texas Government Code, contractors executing a contract with a governmental body that results in the expenditure of at least \$1 million in public funds must:

- 1) preserve all contracting information* as provided by the records retention requirements applicable to Texas Department of Transportation (TxDOT) for the duration of the contract,
- 2) on request of TxDOT, promptly provide any contracting information related to the contract that is in the custody or possession of the entity, and
- 3) on completion of the contract, either:
 - A. provide, at no cost to TxDOT, all contracting information related to the contract that is in the custody or possession of the entity, or
 - B. preserve the contracting information related to the contract as provided by the records retention requirements applicable to TxDOT

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

By entering into Contract, the Contractor agrees to:

- provide, or make available, to TxDOT and any authorized governmental investigating or auditing agency all records, including electronic and payment records related to the contract, for the same period provided by the records retention schedule applicable to TxDOT, and
- ensure that all subcontracts include a clause requiring the same.

* As defined in Government Code §552.003, “Contracting information” means the following information maintained by a governmental body or sent between a governmental body and a vendor, contractor, potential vendor, or potential contractor:

- 1) information in a voucher or contract relating to the receipt or expenditure of public funds by a governmental body;
- 2) solicitation or bid documents relating to a contract with a governmental body;
- 3) communications sent between a governmental body and a vendor, contractor, potential vendor, or potential contractor during the solicitation, evaluation, or negotiation of a contract;
- 4) documents, including bid tabulations, showing the criteria by which a governmental body evaluates each vendor, contractor, potential vendor, or potential contractor responding to a solicitation and, if applicable, an explanation of why the vendor or contractor was selected; and
- 5) communications and other information sent between a governmental body and a vendor or contractor related to the performance of a final contract with the governmental body or work performed on behalf of the governmental body.

CERTIFICATION TO NOT BOYCOTT ISRAEL

Pursuant to Texas Government Code §2271.002, the Department must include a provision requiring a written verification affirming that the Contractor does not boycott Israel, as defined in Government Code §808.001, and will not boycott Israel during the term of the contract. This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not boycott Israel and will not boycott Israel during the term of this contract. "Boycott" 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.

Violation of this certification may result in action by the Department.

CERTIFICATION TO NOT BOYCOTT ENERGY COMPANIES

Pursuant to Texas Government Code §2274.002, the Department must include a provision requiring a written verification affirming that the Contractor does not boycott energy companies, as defined in Government Code §809.001, and will not boycott energy companies during the term of the contract. This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not boycott energy companies and will not boycott energy companies during the term of this contract. "Boycott" means taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company: (1) engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; or (2) does business with a company described by (1).

Violation of this certification may result in action by the Department.

CERTIFICATION TO NOT DISCRIMINATE AGAINST FIREARM ENTITIES OR FIREARM TRADE ASSOCIATIONS

Pursuant to Texas Government Code §2274.002, the Department must include a provision requiring a written verification affirming that the Contractor:

- 1) does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association, as defined in Government Code §2274.001, and
- 2) will not discriminate against a firearm entity or firearm trade association during the term of the contract.

This provision applies to a contract that:

- 1) is with a Contractor that is not a sole proprietorship,
- 2) is with a Contractor with 10 or more full-time employees, and
- 3) has a value of \$100,000 or more.

By signing the contract, the Contractor certifies that it does not discriminate against a firearm entity or firearm trade association as described and will not do so during the term of this contract. "Discriminate against a firearm entity or firearm trade association" means, with respect to the entity or association, to: (1) refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; (2) refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or (3) terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association. "Discriminate against a firearm entity or firearm trade association" does not include: (1) the established policies of a merchant, retail seller, or platform that restrict or prohibit the listing or selling of ammunition, firearms, or firearm accessories; (2) a company's refusal to engage in the trade of any goods or services, decision to refrain from continuing an existing business relationship, or decision to terminate an existing business relationship to comply with federal, state, or local law, policy, or regulations or a directive by a regulatory agency, or for any traditional business reason that is specific to the customer or potential customer and not based solely on an entity's or association's status as a firearm entity or firearm trade association.

Violation of this certification may result in action by the Department.

PROHIBITION ON CERTAIN TELECOMMUNICATIONS EQUIPMENT OR SERVICES

The Federal Register Notice issued the Final Rule and states that the amendment to 2 CFR 200.216 is effective on August 13, 2020. The new 2 CFR 200.471 regulation provides clarity that the telecommunications and video surveillance costs associated with 2 CFR 200.216 are unallowable for services and equipment from these specific providers. OMB's Federal Register Notice includes the new 2 CFR 200.216 and 2 CFR 200.471 regulations.

<https://www.federalregister.gov/documents/2020/08/13/2020-17468/guidance-for-grants-and-agreements>

Per the Federal Law referenced above, use of services, systems, or services or systems that contain components produced by any of the following manufacturers is strictly prohibited for use on this project. Therefore, for any telecommunications, CCTV, or video surveillance equipment, services or systems cannot be manufactured by, or have components manufactured by:

- Huawei Technologies Company,
- ZTE Corporation (any subsidiary and affiliate of such entities),
- Hytera Communications Corporation,
- Hangzhou Hikvision Digital Technology Company,
- Dahua Technology Company (any subsidiary and affiliate of such entities).

Violation of this prohibition will require replacement of the equipment at the contractor's expense.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* 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 paragraphs (d) and (e) of 29 CFR 5.5, 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 1.e. of this section; 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 paragraph 4. of this section. 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 paragraph 1.c. of this section) 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.

b. *Frequently recurring classifications.* (1) 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 paragraph 1.c. of this section, provided that:

(i) 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;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. 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.

c. *Conformance.* (1) 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:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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.

(4) 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. 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 paragraph 1.c.(3) or (4) of this section 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.

d. *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.

e. *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 § 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.

f. *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 (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency 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 this section 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 § 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 all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) 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;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) 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.

(2) *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.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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.

(4) *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.

b. *Certified payroll requirements (1) 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 the contracting

agency. 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.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, 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 website 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 contracting agency.

(3) *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:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) 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

(iii) 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.

(4) *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 paragraph 3.b.(3) of this section.

(5) *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.

(6) *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](#).

(7) *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.

c. *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.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *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 § 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.

(3) *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 the contracting agency, the State DOT, the FHWA, 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 (29 CFR 5.5)

a. *Apprentices* (1) *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.

(2) *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.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers 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 paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, 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.

(4) *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.

b. *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](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. 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 as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency 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. 29 CFR 5.5.

7. 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.

8. 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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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. a. 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 § 5.12(a).

b. 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 § 5.12(a).

c. 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:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. 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, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction 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 shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. 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. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section 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 paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* 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 paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency 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 this section 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 § 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) 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;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) 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 paragraphs 1. through 5. of this section 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 paragraphs 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:

a. 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 this part;

b. 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 this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees 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 Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, 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 any Federal 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 Federal 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.

2. 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. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

The wage rates listed herein are those predetermined by the Secretary of Labor and State Statute and listed in the United States Department of Labor's (USDOL) General Decisions dated 01-05-2024 and are the minimum wages to be paid accordingly for each specified classification. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed herein and not in the USDOL's general decision, must be requested by the contractor through the completion of an Additional Classification and Wage Rate Request and be submitted for approval. IMPORTANT NOTICE FOR STATE PROJECTS: only the controlling wage rate zone applies to the contract. Effective 01-05-2024.

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20240002)	ZONE TX03 *(TX20240003)	ZONE TX04 *(TX20240004)	ZONE TX05 *(TX20240005)	ZONE TX06 *(TX20240006)	ZONE TX07 *(TX20240007)	ZONE TX08 *(TX20240008)	ZONE TX24 *(TX20240024)	ZONE TX25 *(TX20240025)	ZONE TX27 *(TX20240027)	ZONE TX28 *(TX20240028)	ZONE TX29 *(TX20240029)	ZONE TX30 *(TX20240030)	ZONE TX37 *(TX20240037)	ZONE TX38 *(TX20240038)	ZONE TX42 *(TX20240042)
1428	Agricultural Tractor Operator						\$12.69					\$12.35			\$11.75		
1300	Asphalt Distributor Operator	\$14.87	\$13.48	\$13.88	\$15.72	\$15.58	\$15.55	\$15.72	\$13.28	\$15.32	\$15.62	\$14.36	\$14.25	\$14.03	\$13.75	\$14.06	\$14.40
1303	Asphalt Paving Machine Operator	\$13.40	\$12.25	\$12.35	\$13.87	\$14.05	\$14.36	\$14.20	\$13.26	\$13.99	\$14.68	\$12.92	\$13.44	\$12.53	\$14.00	\$14.32	\$12.99
1106	Asphalt Raker	\$12.28	\$10.61	\$12.02	\$14.21	\$11.65	\$12.12	\$11.64	\$11.44	\$12.69	\$12.05	\$11.34	\$11.67	\$11.40	\$12.59	\$12.36	\$11.78
1112	Batching Plant Operator, Asphalt																
1115	Batching Plant Operator, Concrete																
1214	Blaster																
1615	Boom Truck Operator						\$18.36										
1444	Boring Machine Operator																
1305	Broom or Sweeper Operator	\$11.21	\$10.33	\$10.08	\$11.99		\$11.04	\$11.62		\$11.74	\$11.41	\$10.30		\$10.23	\$10.60	\$12.68	\$11.05
1144	Communications Cable Installer																
1124	Concrete Finisher, Paving and Structures	\$13.55	\$12.46	\$13.16	\$12.85	\$12.64	\$12.56	\$12.77	\$12.44	\$14.12	\$13.04	\$13.38	\$12.64	\$12.80	\$12.79	\$12.98	\$13.32
1318	Concrete Pavement Finishing Machine Operator				\$16.05		\$15.48			\$16.05		\$19.31				\$13.07	
1315	Concrete Paving, Curing, Float, Texturing Machine Operator											\$16.34				\$11.71	
1333	Concrete Saw Operator				\$14.67					\$14.48	\$17.33					\$13.99	
1399	Concrete/Gunite Pump Operator																
1344	Crane Operator, Hydraulic 60 tons or less				\$18.22		\$18.36			\$18.12	\$18.04	\$20.21			\$18.63	\$13.86	
1345	Crane Operator, Hydraulic Over 80 Tons																
1342	Crane Operator, Lattice Boom 80 Tons or Less	\$16.82	\$14.39	\$13.85	\$17.27		\$15.87			\$17.27		\$14.67			\$16.42	\$14.97	\$13.87
1343	Crane Operator, Lattice Boom Over 80 Tons				\$20.52		\$19.38			\$20.52		\$17.49			\$25.13	\$15.80	
1306	Crawler Tractor Operator	\$13.96	\$16.63	\$13.62	\$14.26		\$15.67			\$14.07	\$13.15	\$13.38			\$14.60	\$13.68	\$13.50
1351	Crusher or Screen Plant Operator																
1446	Directional Drilling Locator						\$11.67										
1445	Directional Drilling Operator				\$20.32		\$17.24										
1139	Electrician	\$20.96		\$19.87	\$19.80		\$26.35		\$20.27	\$19.80		\$20.92				\$27.11	\$19.87
1347	Excavator Operator, 50,000 pounds or less	\$13.46	\$12.56	\$13.67	\$17.19		\$12.88	\$14.38	\$13.49	\$17.19		\$13.88			\$14.09	\$12.71	\$14.42
1348	Excavator Operator, Over 50,000 pounds		\$15.23	\$13.52	\$17.04		\$17.71			\$16.99	\$18.80	\$16.22				\$14.53	\$13.52
1150	Flagger	\$9.30	\$9.10	\$8.50	\$10.28	\$8.81	\$9.45	\$8.70		\$10.06	\$9.71	\$9.03	\$8.81	\$9.08	\$9.90	\$10.33	\$8.10
1151	Form Builder/Setter, Structures	\$13.52	\$12.30	\$13.38	\$12.91	\$12.71	\$12.87	\$12.38	\$12.26	\$13.84	\$12.98	\$13.07	\$13.61	\$12.82	\$14.73	\$12.23	\$12.25
1160	Form Setter, Paving & Curb	\$12.36	\$12.16	\$13.93	\$11.83	\$10.71	\$12.94			\$13.16	\$12.54	\$11.33	\$10.69		\$13.33	\$12.34	\$13.93
1360	Foundation Drill Operator, Crawler Mounted				\$17.99					\$17.99						\$17.43	
1363	Foundation Drill Operator, Truck Mounted		\$16.86	\$22.05	\$21.51		\$16.93			\$21.07	\$20.20	\$20.76		\$17.54	\$21.39	\$15.89	\$22.05
1369	Front End Loader Operator, 3 CY or Less	\$12.28	\$13.49	\$13.40	\$13.85		\$13.04	\$13.15	\$13.29	\$13.69	\$12.64	\$12.89			\$13.51	\$13.32	\$12.17
1372	Front End Loader Operator, Over 3 CY	\$12.77	\$13.69	\$12.33	\$14.96		\$13.21	\$12.86	\$13.57	\$14.72	\$13.75	\$12.32			\$13.19	\$13.17	\$13.02
1329	Joint Sealer																
1172	Laborer, Common	\$10.30	\$9.86	\$10.08	\$10.51	\$10.71	\$10.50	\$10.24	\$10.58	\$10.72	\$10.45	\$10.30	\$10.25	\$10.03	\$10.54	\$11.02	\$10.15
1175	Laborer, Utility	\$11.80	\$11.53	\$12.70	\$12.17	\$11.81	\$12.27	\$12.11	\$11.33	\$12.32	\$11.80	\$11.53	\$11.23	\$11.50	\$11.95	\$11.73	\$12.37
1346	Loader/Backhoe Operator	\$14.18	\$12.77	\$12.97	\$15.68		\$14.12			\$15.18	\$13.58	\$12.87		\$13.21	\$14.13	\$14.29	\$12.90
1187	Mechanic	\$20.14	\$15.47	\$17.47	\$17.74	\$17.00	\$17.10			\$17.68	\$18.94	\$18.58	\$17.00	\$16.61	\$18.46	\$16.96	\$17.47

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20240002)	ZONE TX03 *(TX20240003)	ZONE TX04 *(TX20240004)	ZONE TX05 *(TX20240005)	ZONE TX06 *(TX20240006)	ZONE TX07 *(TX20240007)	ZONE TX08 *(TX20240008)	ZONE TX24 *(TX20240024)	ZONE TX25 *(TX20240025)	ZONE TX27 *(TX20240027)	ZONE TX28 *(TX20240028)	ZONE TX29 *(TX20240029)	ZONE TX30 *(TX20240030)	ZONE TX37 *(TX20240037)	ZONE TX38 *(TX20240038)	ZONE TX42 *(TX20240042)
1380	Milling Machine Operator Motor Grader Operator,	\$15.54	\$14.64	\$12.22	\$14.29		\$14.18			\$14.32	\$14.35	\$12.86			\$14.75	\$13.53	\$12.80
1390	Fine Grade	\$17.49	\$16.52	\$16.88	\$17.12	\$18.37	\$18.51	\$16.69	\$16.13	\$17.19	\$18.35	\$17.07	\$17.74	\$17.47	\$17.08	\$15.69	\$20.01
1393	Motor Grader Operator, Rough	\$16.15	\$14.62	\$15.83	\$16.20	\$17.07	\$14.63	\$18.50		\$16.02	\$16.44	\$15.12	\$16.85	\$14.47	\$17.39	\$14.23	\$15.53
1413	Off Road Hauler			\$10.08	\$12.26		\$11.88			\$12.25		\$12.23			\$13.00	\$14.60	
1196	Painter, Structures					\$21.29	\$18.34						\$21.29			\$18.62	
1396	Pavement Marking Machine Operator	\$16.42		\$13.10	\$13.55		\$19.17	\$12.01		\$13.63	\$14.60	\$13.17		\$16.65	\$10.54	\$11.18	\$13.10
1443	Percussion or Rotary Drill Operator																
1202	Piledriver															\$14.95	
1205	Pipelayer		\$11.87	\$14.64	\$13.17	\$11.17	\$12.79		\$11.37	\$13.24	\$12.66	\$13.24	\$11.17	\$11.67		\$12.12	\$14.64
1384	Reclaimer/Pulverizer Operator	\$12.85			\$11.90		\$12.88			\$11.01		\$10.46					
1500	Reinforcing Steel Worker	\$13.50	\$14.07	\$17.53	\$16.17		\$14.00			\$16.18	\$12.74	\$15.83		\$17.10		\$15.15	\$17.72
1402	Roller Operator, Asphalt	\$10.95		\$11.96	\$13.29		\$12.78	\$11.61		\$13.08	\$12.36	\$11.68			\$11.71	\$11.95	\$11.50
1405	Roller Operator, Other	\$10.36		\$10.44	\$11.82		\$10.50	\$11.64		\$11.51	\$10.59	\$10.30		\$12.04	\$12.85	\$11.57	\$10.66
1411	Scraper Operator	\$10.61	\$11.07	\$10.85	\$12.88		\$12.27		\$11.12	\$12.96	\$11.88	\$12.43		\$11.22	\$13.95	\$13.47	\$10.89
1417	Self-Propelled Hammer Operator																
1194	Servicer	\$13.98	\$12.34	\$14.11	\$14.74		\$14.51	\$15.56	\$13.44	\$14.58	\$14.31	\$13.83		\$12.43	\$13.72	\$13.97	\$14.11
1513	Sign Erector																
1708	Slurry Seal or Micro-Surfacing Machine Operator																
1341	Small Slipform Machine Operator									\$15.96							
1515	Spreader Box Operator	\$12.60		\$13.12	\$14.71		\$14.04			\$14.73	\$13.84	\$13.68		\$13.45	\$11.83	\$13.58	\$14.05
1705	Structural Steel Welder															\$12.85	
1509	Structural Steel Worker						\$19.29									\$14.39	
1339	Subgrade Trimmer																
1143	Telecommunication Technician																
1145	Traffic Signal/Light Pole Worker						\$16.00										
1440	Trenching Machine Operator, Heavy						\$18.48										
1437	Trenching Machine Operator, Light																
1609	Truck Driver Lowboy-Float	\$14.46	\$13.63	\$13.41	\$15.00	\$15.93	\$15.66			\$16.24	\$16.39	\$14.30	\$16.62	\$15.63	\$14.28	\$16.03	\$13.41
1612	Truck Driver Transit-Mix				\$14.14					\$14.14							
1600	Truck Driver, Single Axle	\$12.74	\$10.82	\$10.75	\$13.04	\$11.61	\$11.79	\$13.53	\$13.16	\$12.31	\$13.40	\$10.30	\$11.61		\$11.97	\$11.46	\$10.75
1606	Truck Driver, Single or Tandem Axle Dump Truck	\$11.33	\$14.53	\$11.95	\$12.95		\$11.68		\$14.06	\$12.62	\$11.45	\$12.28		\$13.08	\$11.68	\$11.48	\$11.10
1607	Truck Driver, Tandem Axle Tractor with Semi Trailer	\$12.49	\$12.12	\$12.50	\$13.42		\$12.81	\$13.16		\$12.86	\$16.22	\$12.50			\$13.80	\$12.27	\$12.50
1441	Tunneling Machine Operator, Heavy																
1442	Tunneling Machine Operator, Light																
1706	Welder		\$14.02		\$14.86		\$15.97		\$13.74	\$14.84					\$13.78		
1520	Work Zone Barricade Servicer	\$10.30	\$12.88	\$11.46	\$11.70	\$11.57	\$11.85	\$10.77		\$11.68	\$12.20	\$11.22	\$11.51	\$12.96	\$10.54	\$11.67	\$11.76

Notes:

*Represents the USDOL wage decision.

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

For reference, the titles and descriptions for the classifications listed here are detailed further in the AGC of Texas' *Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas* posted on the AGC's Web site for any contractor.

**TEXAS COUNTIES IDENTIFIED BY
WAGE RATE ZONES: 2, 3, 4, 5, 6, 7, 8, 24, 25, 27, 28, 29, 30, 37, 38, 42**

County Name	Zone	County Name	Zone	County Name	Zone	County Name	Zone
Anderson	28	Donley	37	Karnes	27	Reagan	37
Andrews	37	Duval	30	Kaufman	25	Real	37
Angelina	28	Eastland	37	Kendall	7	Red River	28
Aransas	29	Ector	2	Kenedy	30	Reeves	8
Archer	25	Edwards	8	Kent	37	Refugio	27
Armstrong	2	El Paso	24	Kerr	27	Roberts	37
Atascosa	7	Ellis	25	Kimble	37	Robertson	7
Austin	38	Erath	28	King	37	Rockwall	25
Bailey	37	Falls	28	Kinney	8	Runnels	37
Bandera	7	Fannin	28	Kleberg	27	Rusk	4
Bastrop	7	Fayette	27	Knox	37	Sabine	28
Baylor	37	Fisher	37	Lamar	28	San Augustine	28
Bee	27	Floyd	37	Lamb	37	San Jacinto	38
Bell	7	Foard	37	Lampasas	7	San Patricio	29
Bexar	7	Fort Bend	38	LaSalle	30	San Saba	37
Blanco	27	Franklin	28	Lavaca	27	Schleicher	37
Borden	37	Freestone	28	Lee	27	Scurry	37
Bosque	28	Frio	27	Leon	28	Shackelford	37
Bowie	4	Gaines	37	Liberty	38	Shelby	28
Brazoria	38	Galveston	38	Limestone	28	Sherman	37
Brazos	7	Garza	37	Lipscomb	37	Smith	4
Brewster	8	Gillespie	27	Live Oak	27	Somervell	28
Briscoe	37	Glasscock	37	Llano	27	Starr	30
Brooks	30	Goliad	29	Loving	37	Stephens	37
Brown	37	Gonzales	27	Lubbock	2	Sterling	37
Burleson	7	Gray	37	Lynn	37	Stonewall	37
Burnet	27	Grayson	25	Madison	28	Sutton	8
Caldwell	7	Gregg	4	Marion	28	Swisher	37
Calhoun	29	Grimes	28	Martin	37	Tarrant	25
Callahan	25	Guadalupe	7	Mason	27	Taylor	2
Cameron	3	Hale	37	Matagorda	27	Terrell	8
Camp	28	Hall	37	Maverick	30	Terry	37
Carson	2	Hamilton	28	McCulloch	37	Throckmorton	37
Cass	28	Hansford	37	McLennan	7	Titus	28
Castro	37	Hardeman	37	McMullen	30	Tom Green	2
Chambers	38	Hardin	38	Medina	7	Travis	7
Cherokee	28	Harris	38	Menard	37	Trinity	28
Childress	37	Harrison	42	Midland	2	Tyler	28
Clay	25	Hartley	37	Milam	28	Upshur	4
Cochran	37	Haskell	37	Mills	37	Upton	37
Coke	37	Hays	7	Mitchell	37	Uvalde	30
Coleman	37	Hemphill	37	Montague	37	Val Verde	8
Collin	25	Henderson	28	Montgomery	38	Van Zandt	28
Collingsworth	37	Hidalgo	3	Moore	37	Victoria	6
Colorado	27	Hill	28	Morris	28	Walker	28
Comal	7	Hockley	37	Motley	37	Waller	38
Comanche	37	Hood	28	Nacogdoches	28	Ward	37
Concho	37	Hopkins	28	Navarro	28	Washington	28
Cooke	37	Houston	28	Newton	28	Webb	3
Coryell	7	Howard	37	Nolan	37	Wharton	27
Cottle	37	Hudspeth	8	Nueces	29	Wheeler	37
Crane	37	Hunt	25	Ochiltree	37	Wichita	5
Crockett	8	Hutchinson	37	Oldham	37	Wilbarger	37
Crosby	2	Irion	2	Orange	38	Willacy	30
Culberson	8	Jack	28	Palo Pinto	28	Williamson	7
Dallam	37	Jackson	27	Panola	28	Wilson	7
Dallas	25	Jasper	28	Parker	25	Winkler	37
Dawson	37	Jeff Davis	8	Parmer	37	Wise	25
Deaf Smith	37	Jefferson	38	Pecos	8	Wood	28
Delta	25	Jim Hogg	30	Polk	28	Yoakum	37
Denton	25	Jim Wells	27	Potter	2	Young	37
DeWitt	27	Johnson	25	Presidio	8	Zapata	30
Dickens	37	Jones	25	Rains	28	Zavala	30
Dimmit	30			Randall	2		

Special Provision to Item 000

Nondiscrimination



1. DESCRIPTION

All recipients of federal financial assistance are required to comply with various nondiscrimination laws, including Title VI of the Civil Rights Act of 1964, as amended (Title VI). Title VI forbids discrimination against anyone in the United States on the grounds of race, color, or national origin by any agency receiving federal funds.

The Texas Department of Transportation, as a recipient of federal financial assistance, and under Title VI and related statutes, ensures that no person will on the grounds of race, religion (where the primary objective of the financial assistance is to provide employment in accordance with 42 USC 2000d-3), color, national origin, sex, age, or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any Department programs or activities.

2. DEFINITION OF TERMS

Where the term "Contractor" appears in the following six nondiscrimination clauses, the term "Contractor" is understood to include all parties to Contracts or agreements with the Department.

3. NONDISCRIMINATION PROVISIONS

During the performance of this Contract, the Contractor agrees as follows.

- 3.1. **Compliance with Regulations.** The Contractor must comply with the Regulations pertinent to nondiscrimination in federally assisted programs of the United States Department of Transportation 49 CFR 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.
- 3.2. **Nondiscrimination.** The Contractor, regarding the work performed during the Contract, must not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor must not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.
- 3.3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment.** In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, the Contractor must notify each potential subcontractor or supplier of the Contractor's obligations under this Contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 3.4. **Information and Reports.** The Contractor must provide all information and reports required by the Regulations or directives issued pursuant thereto, and must permit access to its books, records, accounts, other sources of information, and facilities as may be determined by the Recipient or the Department to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor must so certify to the Recipient, or the Department as appropriate, and must set forth what efforts it has made to obtain the information.
- 3.5. **Sanctions for Noncompliance.** In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Recipient must impose such Contract sanctions as it or the Department may

determine to be appropriate, including, but not limited to actions defined in Article 7.1., "Ethics," or Article 5.1., "Authority of Engineer."

- 3.6. **Incorporation of Provisions.** The Contractor must include the provisions of Sections 3.1–3.6 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The Contractor must take such action with respect to any subcontract or procurement as the Recipient or the Department 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 supplier as a result of such direction, the Contractor may request the Recipient to enter into such litigation to protect the interests of the Recipient, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Special Provision to Item 000

Certification of Nondiscrimination in Employment



1. GENERAL

By signing this proposal, the Bidder certifies that it has participated in a previous Contract or subcontract subject to the equal opportunity clause, as required by Executive Order (EO) 10925, 11114, or 11246, or if it has not participated in a previous Contract of this type, or if it has had previous Contracts or subcontracts and has not filed, it will file with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity (EEO), all reports due under the applicable filing requirements.

Note—The above certification is required by the EEO Regulations of the Secretary of Labor [41 CFR 60-1.7(b)(1)], and must be submitted by Bidders and proposed subcontractors only in connection with Contracts and subcontracts that are subject to the equal opportunity clause. Contracts and subcontracts that are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only Contracts or subcontracts of \$10,000 or less are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the EOs or their implementing regulations.

Proposed prime Contractors and subcontractors that have participated in a previous Contract or subcontract subject to the EO and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of Contracts and subcontracts unless such Contractor submits a report covering the delinquent period or such other period specified by FHWA or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

Special Provision to Item 000

Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)



1. GENERAL

1.1. As used in these Specifications:

- “Covered area” means the geographical area described in the solicitation from which this Contract resulted;
- “Director” means Director, Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor (DOL), or any person to whom the Director delegates authority;
- “Employer identification number” means the federal Social Security number used on the employer’s quarterly federal tax return, U.S. Treasury Department Form 941; and
- “Minority” includes:
 - Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
 - Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

1.2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it will physically include in each subcontract of more than \$10,000 the provisions of these Specifications and the Notice that contains the applicable goals for minority and female participation that are set forth in the solicitations from which this Contract resulted.

1.3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by DOL in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) will be in conformance with that Plan for those trades that have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the equal employment opportunity (EEO) clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor’s or subcontractor’s failure to take good faith efforts to achieve the Plan goals and timetables.

1.4. The Contractor will implement the specific affirmative action standards provided in Sections 1.7.1.– Section 1.7.16. of this Specification. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing Contracts in geographical areas where they do not have a federal or federally assisted construction Contract will apply the minority and female goals established for the geographical area where the Contract is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any OFCCP office

or any federal procurement contracting officer. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

- 1.5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women will excuse the Contractor's obligations under these Specifications, Executive Order (EO) 11246, or the regulations promulgated pursuant thereto.
- 1.6. For the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by DOL.
- 1.7. The Contractor will take specific affirmative actions to ensure EEO. The evaluation of the Contractor's compliance with these Specifications will be based on its effort to achieve maximum results from its actions. The Contractor will document these efforts fully and will implement affirmative action steps at least as extensive as the following.
 - 1.7.1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor will specifically ensure that all foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - 1.7.2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - 1.7.3. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, recruitment source, or community organization, and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred to the Contractor by the union or, if referred, not employed by the Contractor, this will be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - 1.7.4. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement have not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - 1.7.5. Develop on-the-job training opportunities or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by DOL. The Contractor will provide notice of these programs to the sources compiled under Section 1.7.2.
 - 1.7.6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in publications such as the company newspaper and annual report; by specifically reviewing the policy with all management personnel and with all minority and female employees at least once annually; and by posting it on bulletin boards accessible to all employees at each location where construction work is performed.
 - 1.7.7. Review, at least annually, the company's EEO policy and affirmative action obligations under these Specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions, including specific review of these items with onsite supervisory personnel such as

superintendents and general foremen, before the initiation of construction work at any jobsite. A written record must be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

- 1.7.8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.
- 1.7.9. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations; to schools with minority and female students; and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 mo. before the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor will send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- 1.7.10. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after-school, summer, and vacation employment to minority and female youth both onsite and in other areas of a Contractor's workforce.
- 1.7.11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR 60-3.
- 1.7.12. At least annually, conduct an inventory and evaluation at least of all minority and female personnel for promotional opportunities, and encourage these employees to seek or to prepare for such opportunities through appropriate training or other means.
- 1.7.13. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and the Contractor's obligations under these Specifications are being carried out.
- 1.7.14. Ensure that all facilities and company activities are non-segregated, except that separate or single-user toilet and necessary changing facilities will be provided to assure privacy between the sexes.
- 1.7.15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- 1.7.16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 1.8. Contractors are encouraged to participate in voluntary associations that assist in fulfilling one or more of their affirmative action obligations (Sections 1.7.1.–1.7.16. of this Specifications). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under Sections 1.7.1–1.7.16. of this Specification, provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's, and failure of such a group to fulfill an obligation will not be a defense for the Contractor's noncompliance.
- 1.9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide EEO and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the EO if a particular group is employed in a substantially disparate manner (e.g., even though the Contractor

has achieved its goals for women generally, the Contractor may be in violation of the EO if a specific minority group of women is underused).

- 1.10. The Contractor must not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 1.11. The Contractor will not enter into any subcontract with any person or firm debarred from Government Contracts pursuant to EO 11246.
- 1.12. The Contractor will carry out such sanctions and penalties for violation of these Specifications and of the Equal Opportunity Clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to EO 11246, as amended, and its implementing regulations, by OFCCP. Any Contractor who fails to carry out such sanctions and penalties will be in violation of these Specifications and EO 11246, as amended.
- 1.13. The Contractor, in fulfilling its obligations under these Specifications, will implement specific affirmative action steps, at least as extensive as those standards prescribed in Section 1.7 of this Specification, to achieve maximum results from its efforts to ensure EEO. If the Contractor fails to comply with the requirements of the EO, the implementing regulations, or these Specifications, the Director will proceed in accordance with 41 CFR 60-4.8.
- 1.14. The Contractor will designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records must at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, Social Security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records must be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors will not be required to maintain separate records.
- 1.15. Nothing herein provided will be construed as a limitation on the application of other laws that establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).
- 1.16. In addition to the reporting requirements set forth elsewhere in this Contract, the Contractor and the subcontractors holding subcontracts, not including material suppliers, of \$10,000 or more, will submit for every month of July during which work is performed, employment data as contained under Form PR 1391 (Appendix C to 23 CFR 230), and in conformance with the included instructions.

Special Provision to Item 000

On-the-Job Training Program



1. DESCRIPTION

The primary objective of this Special Provision is the training and advancement of minorities, women, and economically disadvantaged persons toward journeyworker status. Accordingly, make every effort to enroll minority, women, and economically disadvantaged persons to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended to, and will not be used to, discriminate against any applicant for training, whether he or she is a member of a minority group or not.

2. TRAINEE ASSIGNMENT

Training assignments are based on the past volume of State-let highway construction Contracts awarded with the Department. Contractors meeting the selection criteria will be notified of their training assignment at the beginning of the reporting year by the Department's Civil Rights Division.

3. PROGRAM REQUIREMENTS

Fulfill all the requirements of the On-the-Job Training Program, including the maintenance of records and submittal of periodic reports documenting program performance. Trainees will be paid at least 60% of the appropriate minimum journeyworker's rate specified in the Contract for the first half of the training period, 75% for the third quarter, and 90% for the last quarter, respectively.

4. REIMBURSEMENT

If requested, Contractors may be reimbursed \$0.80 per training hour at no additional cost to the Department. Training may occur on this project, all other Department Contracts, or locally administered federal aid projects with concurrence of the local government entity. However, reimbursement for training is not available on projects to the extent that such projects do not contain federal funds.

5. COMPLIANCE

The Contractor will have fulfilled the contractual responsibilities by having provided acceptable training to the number of trainees specified in their goal assignment. Noncompliance may be cause for corrective and appropriate measures in accordance with Article 8.7., "Default of Contract," which may be used to comply with the sanctions for noncompliance pursuant to 23 CFR 230.

Special Provision to Item 000

Americans with Disabilities Act Curb Ramp Workshop



Before starting work, schedule and attend a mandatory preconstruction Americans with Disabilities Act curb ramp workshop. The workshop will be administered by the Department, will be 4 hr. or less, and will be held during normal working hours at an approved location near the project.

Supervisory personnel responsible for control of the work must attend the workshop.

The Department will provide workshop facilitators and facilities. No direct compensation will be made for fulfilling these requirements because this workshop will be subsidiary to the Items of the Contract.

Special Provision 000

Cargo Preference Act Requirements in Federal Aid Contracts



1. DESCRIPTION

All recipients of federal financial assistance are required to comply with the U.S. Department of Transportation's Cargo Preference Act requirements, 46 CFR 381, "Use of United States-Flag Vessels."

This requirement applies to material or equipment that is acquired specifically for a federal-aid highway project. It is not applicable to goods or materials that come into inventories independent of an FHWA-funded Contract.

When oceanic shipments are necessary for materials or equipment acquired for a specific federal-aid construction project, the Contractor agrees to:

- use privately owned United States-flag commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels;
- furnish a legible copy of a rated, onboard commercial ocean bill of lading in English for each shipment of cargo described in Paragraph (b)(1) of 46 CFR 381, Section 7, "Federal Grant, Guaranty, Loan and Advance of Funds Agreements," within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, to both the Engineer (through the prime Contractor in the case of subcontractor bills of lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590; and
- insert the substance of the provisions of this clause in all subcontracts issued pursuant to this Contract.

Special Provision 000

Important Notice to Contractors



1. GENERAL

In accordance with Texas Transportation Code §223.012, the Engineer will evaluate Contractor performance based on quality, safety, and timeliness of the project.

2. DEFINITIONS

- 2.1. **Project Recovery Plan (PRP).** A formal, enforceable plan developed by the Contractor, in consultation with the District, that documents the cause of noted quality, safety, and timeliness issues and specifies how the Contractor proposes to correct project-specific performance deficiencies.

In accordance with 43 TAC §9.23, the District will request a PRP if the Contractor's performance on a project is below the Department's acceptable standards and will monitor the Contractor's compliance with the established plan.

- 2.2. **Corrective Action Plan (CAP).** A formal, enforceable plan developed by the Contractor, and proposed for adoption by the Construction Division or Maintenance Division, that documents the cause of noted quality, safety, and timeliness issues and specifies how the Contractor proposes to correct statewide performance deficiencies.

3. CONTRACTOR EVALUATIONS

In accordance with 43 TAC §9.23, the Engineer will schedule evaluations at the following intervals, at minimum:

- interim evaluations at or within 30 days after the anniversary of the Notice to Proceed, for Contracts extending beyond 1 yr. and
- final evaluation, upon project closeout.

In case of a takeover agreement, neither the Surety nor its performing Contractor will be evaluated.

In addition to regularly scheduled evaluations, the Engineer may schedule an interim evaluation at any time to formally communicate issues with quality, safety, or timeliness. Upon request, work with the Engineer to develop a PRP to document expectations for correcting deficiencies.

Comply with the PRP as directed. Failure to comply with the PRP may result in additional remedial actions available to the Engineer under Item 5, "Control of the Work." Failure to meet a PRP to the Engineer's satisfaction may result in immediate referral to the Performance Review Committee for consideration of further action against the Contractor.

The Engineer will consider and document any events outside the Contractor's control that contributed to the failure to meet performance standards or comply with a PRP, including consideration of sufficient time.

Follow the escalation ladder if there is a disagreement regarding an evaluation or disposition of a PRP. The Contractor may submit additional documentation pertaining to the dispute. The District Engineer's decision on a Contractor's evaluation score and recommendation of action required in a PRP or follow-up for noncompliance is final.

4. DIVISION OVERSIGHT

Upon request of the Construction Division or Maintenance Division, develop and submit for Division approval a proposed CAP to document expectations for correcting deficiencies in the performance of projects statewide.

Comply with the CAP as directed. The CAP may be modified at any time up to completion or resolution after written approval of the premise of change from the Division. Failure to meet an adopted or revised adopted CAP to the Division's satisfaction within 120 days will result in immediate referral to the Performance Review Committee for consideration of further action against the Contractor.

The Division will consider and document any events outside the Contractor's control that contributed to the failure to meet performance standards or comply with a CAP, including consideration of sufficient time and associated costs as appropriate.

5. PERFORMANCE REVIEW COMMITTEE

The Performance Review Committee, in accordance with 43 TAC §9.24, will review at minimum all final evaluations, history of compliance with PRPs, any adopted CAPs including agreed modifications, any information about events outside a Contractor's control contributing to the Contractor's performance, and any documentation submitted by the Contractor and may recommend one or more of the following actions:

- take no action,
- reduce the Contractor's bidding capacity,
- prohibit the Contractor from bidding on one or more projects,
- immediately suspend the Contractor from bidding for a specified period of time, by reducing the Contractor's bidding capacity to zero, or
- prohibit the Contractor from being awarded a Contract on which they are the apparent low bidder.

The Deputy Executive Director will determine any further action against the Contractor.

6. APPEALS PROCESS

In accordance with 43 TAC §9.25, the Contractor may appeal remedial actions determined by the Deputy Executive Director.

Special Provision 000

Certificate of Interested Parties (Form 1295)



Submit Form 1295, "Certificate of Interested Parties," in the following instances:

- at Contract execution for Contracts awarded by the Commission,
- at Contract execution for Contracts awarded by the District Engineer or Chief Engineer with an award amount of \$1 million or more,
- at any time an existing Contract awarded by the District Engineer or Chief Engineer increases in value to \$1 million or more because of changes in the Contract,
- at any time there is an increase of \$1 million or more to an existing Contract (e.g., change orders, extensions, and renewals), and
- at any time there is a change to the information in Form 1295, when the form was filed for an existing Contract.

Form 1295 and instructions for completing and filing the form are available on the Texas Ethics Commission website.

Special Provision 000

Important Notice to Contractors



Table 1
Daily Contract Administration Liquidated Damages

For Dollar Amount of Original Contract		Dollar Amount of Daily Contract Administration Liquidated Damages per Working Day
From More Than	To and Including	
0	1,000,000	618
1,000,000	3,000,000	832
3,000,000	5,000,000	940
5,000,000	15,000,000	1,317
15,000,000	25,000,000	1,718
25,000,000	50,000,000	2,411
50,000,000	Over 50,000,000	4,265

In addition to the amount shown in Table 1, the liquidated damages will be increased by the amount shown in Item 8 of the General Notes for Road User Cost (RUC), when applicable.

Special Provision to Item 000

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)



1. GENERAL

In addition to the affirmative action requirements of the Special Provision titled “Standard Federal Equal Employment Opportunity Construction Contract Specifications” as set forth elsewhere in this proposal, the Bidder’s attention is directed to the specific requirements for use of minorities and females as set forth below.

2. GOALS

Goals for minority and female participation are hereby established in accordance with 41 CFR 60-4.

The goals for minority and female participation expressed in percentage terms for the Contractor’s aggregate workforce in each trade on all construction work in the covered area are as follows:

Goals for Minority Participation in Each Trade (%)	Goals for Female Participation in Each Trade (%)
See Table 1	6.9

These goals are applicable to all the Contractor’s construction work (whether it is federal or federally assisted or not) performed in the covered area. If the Contractor performs construction work in a geographical area located outside the covered area, it will apply the goals established for such geographical area where the work is actually performed. Regarding this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction. The Contractor’s compliance with the Executive Order (EO) and the regulations in 41 CFR 60-4 will be based on its implementation of the Standard Federal Equal Employment Opportunity Construction Contract Specifications Special Provision and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor must make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority and female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor’s goals will be a violation of the Contract, the EO, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

The overall good performance of other Contractors and subcontractors toward a goal in an approved plan does not excuse any covered Contractor’s or subcontractor’s failure to make good faith efforts to achieve the goals contained in these provisions. Contractors or subcontractors participating in the plan must be able to demonstrate their participation and document their compliance with the provisions of this plan.

3. SUBCONTRACTING

The Contractor must provide written notification to the Department within 10 working days of award of any construction subcontract more than \$10,000 at any tier for construction work under the Contract resulting from this solicitation pending concurrence of the Department in the award. The notification will list the names, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and geographical area in which the Contract is to be performed.

4. COVERED AREA

As used in this Special Provision, and in the Contract resulting from this solicitation, the geographical area covered by these goals for female participation is the State of Texas. The geographical area covered by these goals for other minorities comprises the counties in the State of Texas as indicated in Table 1.

5. REPORTS

The Contractor is hereby notified that he may be subject to the Office of Federal Contract Compliance Programs (OFCCP) reporting and recordkeeping requirements as provided for under EO 11246 as amended. OFCCP will provide direct notice to the Contractor as to the specific reporting requirements that it will be expected to fulfill.

Table 1
Goals for Minority Participation

County	Participation, %	County	Participation, %
Anderson	22.5	Chambers	27.4
Andrews	18.9	Cherokee	22.5
Angelina	22.5	Childress	11.0
Aranas	44.2	Clay	12.4
Archer	11.0	Cochran	19.5
Armstrong	11.0	Coke	20.0
Atascosa	49.4	Coleman	10.9
Austin	27.4	Collin	18.2
Bailey	19.5	Collingsworth	11.0
Bandera	49.4	Colorado	27.4
Bastrop	24.2	Comal	47.8
Baylor	11.0	Comanche	10.9
Bee	44.2	Concho	20.0
Bell	16.4	Cooke	17.2
Bexar	47.8	Coryell	16.4
Blanco	24.2	Cottle	11.0
Borden	19.5	Crane	18.9
Bosque	18.6	Crockett	20.0
Bowie	19.7	Crosby	19.5
Brazoria	27.3	Culberson	49.0
Brazos	23.7	Dallam	11.0
Brewster	49.0	Dallas	18.2
Briscoe	11.0	Dawson	19.5
Brooks	44.2	Deaf Smith	11.0
Brown	10.9	Delta	17.2
Burleson	27.4	Denton	18.2
Burnet	24.2	DeWitt	27.4
Caldwell	24.2	Dickens	19.5
Calhoun	27.4	Dimmit	49.4
Callahan	11.6	Donley	11.0
Cameron	71.0	Duval	44.2
Camp	20.2	Eastland	10.9
Carson	11.0	Ector	15.1
Cass	20.2	Edwards	49.4
Castro	11.0	Ellis	18.2

County	Participation, %	County	Participation, %
El Paso	57.8	Kenedy	44.2
Erath	17.2	Kent	10.9
Falls	18.6	Kerr	49.4
Fannin	17.2	Kimble	20.0
Fayette	27.4	King	19.5
Fisher	10.9	Kinney	49.4
Floyd	19.5	Kleberg	44.2
Foard	11.0	Knox	10.9
Fort Bend	27.3	Lamar	20.2
Franklin	17.2	Lamb	19.5
Freestone	18.6	Lampasas	18.6
Frio	49.4	LaSalle	49.4
Gaines	19.5	Lavaca	27.4
Galveston	28.9	Lee	24.2
Garza	19.5	Leon	27.4
Gillespie	49.4	Liberty	27.3
Glasscock	18.9	Limestone	18.6
Goliad	27.4	Lipscomb	11.0
Gonzales	49.4	Live Oak	44.2
Gray	11.0	Llano	24.2
Grayson	9.4	Loving	18.9
Gregg	22.8	Lubbock	19.6
Grimes	27.4	Lynn	19.5
Guadalupe	47.8	Madison	27.4
Hale	19.5	Marion	22.5
Hall	11.0	Martin	18.9
Hamilton	18.6	Mason	20.0
Hansford	11.0	Matagorda	27.4
Hardeman	11.0	Maverick	49.4
Hardin	22.6	McCulloch	20.0
Harris	27.3	McLennan	20.7
Harrison	22.8	McMullen	49.4
Hartley	11.0	Medina	49.4
Haskell	10.9	Menard	20.0
Hays	24.1	Midland	19.1
Hemphill	11.0	Milam	18.6
Henderson	22.5	Mills	18.6
Hidalgo	72.8	Mitchell	10.9
Hill	18.6	Montague	17.2
Hockley	19.5	Montgomery	27.3
Hood	18.2	Moore	11.0
Hopkins	17.2	Morris	20.2
Houston	22.5	Motley	19.5
Howard	18.9	Nacogdoches	22.5
Hudspeth	49.0	Navarro	17.2
Hunt	17.2	Newton	22.6
Hutchinson	11.0	Nolan	10.9
Irion	20.0	Nueces	41.7
Jack	17.2	Ochiltree	11.0
Jackson	27.4	Oldham	11.0
Jasper	22.6	Orange	22.6
Jeff Davis	49.0	Palo Pinto	17.2
Jefferson	22.6	Panola	22.5
Jim Hogg	49.4	Parker	18.2
Jim Wells	44.2	Parmer	11.0
Johnson	18.2	Pecos	18.9
Jones	11.6	Polk	27.4
Karnes	49.4	Potter	9.3
Kaufman	18.2	Presidio	49.0
Kendall	49.4	Randall	9.3

County	Participation, %	County	Participation, %
Rains	17.2	Reagan	20.0
Real	49.4	Throckmorton	10.9
Red River	20.2	Titus	20.2
Reeves	18.9	Tom Green	19.2
Refugio	44.2	Travis	24.1
Roberts	11.0	Trinity	27.4
Robertson	27.4	Tyler	22.6
Rockwall	18.2	Upshur	22.5
Runnels	20.0	Upton	18.9
Rusk	22.5	Uvalde	49.4
Sabine	22.6	Val Verde	49.4
San Augustine	22.5	Van Zandt	17.2
San Jacinto	27.4	Victoria	27.4
San Patricio	41.7	Walker	27.4
San Saba	20.0	Waller	27.3
Schleicher	20.0	Ward	18.9
Scurry	10.9	Washington	27.4
Shackelford	10.9	Webb	87.3
Shelby	22.5	Wharton	27.4
Sherman	11.0	Wheeler	11.0
Smith	23.5	Wichita	12.4
Somervell	17.2	Wilbarger	11.0
Starr	72.9	Willacy	72.9
Stephens	10.9	Williamson	24.1
Sterling	20.0	Wilson	49.4
Stonewall	10.9	Winkler	18.9
Sutton	20.0	Wise	18.2
Swisher	11.0	Wood	22.5
Tarrant	18.2	Yoakum	19.5
Taylor	11.6	Young	11.0
Terrell	20.0	Zapata	49.4
Terry	19.5	Zavala	49.4

Special Provision to Item 000

Disadvantaged Business Enterprise in Federal-Aid Contracts



1. DESCRIPTION

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's (DOT) policy of ensuring nondiscrimination in the award and administration of DOT-assisted Contracts and creating a level playing field on which firms owned and controlled by individuals who are determined to be socially and economically disadvantaged can compete fairly for DOT-assisted Contracts.

2. DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL-AID CONTRACTS

2.1. **Policy.** It is the policy of the DOT and the Texas Department of Transportation (Department) that DBEs, as defined in 49 CFR Part 26, Subpart A, and the Department's DBE Program, will have the opportunity to participate in the performance of Contracts financed in whole or in part with federal funds. The DBE requirements of 49 CFR Part 26, and the Department's DBE Program, apply to this Contract as follows.

The Contractor must solicit DBEs through reasonable and available means, as defined in 49 CFR Part 26, Appendix A, and the Department's DBE Program, or show a good faith effort to meet the DBE goal for this Contract.

The Contractor, subrecipient, or subcontractor will not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the Department deems appropriate.

The requirements of this Special Provision must be physically included in any subcontract.

By signing the Contract proposal, the Bidder is certifying that the DBE goal as stated in the proposal will be met by obtaining commitments from eligible DBEs or that the Bidder will provide acceptable evidence of good faith effort to meet the commitment.

2.2. Definitions.

2.2.1. **Administrative Reconsideration.** A process by which the low bidder may request reconsideration when the Department determines the good faith effort (GFE) requirements have not been met.

2.2.2. **Commercially Useful Function (CUF).** A CUF occurs when a DBE has the responsibility for the execution of the work and carrying out such responsibilities by actually performing, managing, and supervising the work.

2.2.3. **Disadvantaged Business Enterprise (DBE).** A for-profit small business certified through the Texas Unified Certification Program in accordance with 49 CFR Part 26, that is at least 51% owned by one or more socially and economically disadvantaged individuals, or in the case of a publicly owned business, in which is at least 51% of the stock is owned by one or more socially and economically disadvantaged individuals, and whose management and daily business operations are controlled by one or more of the individuals who own it.

- 2.2.4. **DBE Joint Venture.** An association of a DBE firm and one or more other firms to carry out a single business enterprise for profit for which purpose they combine their property, capital, efforts, skills, and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the Contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest.
- 2.2.5. **DOT.** The U.S. Department of Transportation, including the Office of the Secretary, the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Federal Aviation Administration (FAA).
- 2.2.6. **Federal-Aid Contract.** Any Contract between the Department and a Contractor that is paid for in whole or in part with DOT financial assistance.
- 2.2.7. **Good Faith Effort.** All necessary and reasonable steps to achieve the contract goal which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain enough DBE participation, even if not fully successful. Good faith efforts are evaluated before award and throughout performance of the Contract. For guidance on good faith efforts, see 49 CFR Part 26, Appendix A.
- 2.2.8. **North American Industry Classification System (NAICS).** A designation that best describes the primary business of a firm. The NAICS is described in the North American Industry Classification Manual—United States, which is available on the Internet at the U.S. Census Bureau website:
<http://www.census.gov/eos/www/naics/>.
- 2.2.9. **Race-Conscious.** A measure or program that is focused specifically on assisting only DBEs, including women-owned businesses.
- 2.2.10. **Race-Neutral DBE Participation.** Any participation by a DBE through customary competitive procurement procedures.
- 2.2.11. **Texas Unified Certification Program (TUCP) Directory.** An online directory listing all DBEs currently certified by the TUCP. The Directory identifies DBE firms whose participation on a Contract may be counted toward achievement of the assigned DBE Contract goal.
- 2.3. **Contractor's Responsibilities.**
- 2.3.1. **DBE Liaison Officer.** Designate a DBE liaison officer who will administer the Contractor's DBE program and who will be responsible for maintenance of records of efforts and contacts made to subcontract with DBEs.
- 2.3.2. **Compliance Tracking System (CTS).** This Contract is subject to electronic Contract compliance tracking. Contractors and DBEs are required to provide any noted and requested Contract compliance-related data electronically in the Department's tracking system. This includes commitments, payments, substitutions, and good faith efforts. Contractors and DBEs are responsible for responding by any noted response date or due date to any instructions or request for information, and to check the system on a regular basis. A Contractor is responsible for ensuring all DBEs have completed all requested items and that their contact information is accurate and up-to-date. The Department may require additional information related to the Contract to be provided electronically through the system at any time before, during, or after contract award. The system is web-based and can be accessed at the following Internet address: <https://txdot.txdotcms.com/>.
- In its sole discretion, the Department may require that contract compliance tracking data be submitted by Contractors and DBEs in an alternative format prescribed by the Department.
- 2.3.3. **Apparent Low Bidder.** The apparent low bidder must submit DBE commitments to satisfy the DBE goal or submit good faith effort Form 2603 and supporting documentation demonstrating why the goal could not be achieved, in whole or part, no later than 5 calendar days after bid opening. The means of transmittal and the

risk of timely receipt of the information will be the bidder's responsibility and no extension of the 5-calendar-day timeframe will be allowed for any reason.

- 2.3.4. **DBE Contractor.** A DBE Contractor may receive credit toward the DBE goal for work performed by its own forces and work subcontracted to DBEs. If a DBE subcontracts to a non-DBE, that information must be reported monthly.

- 2.3.5. **DBE Committal.** Only those DBEs certified by the TUCP are eligible to be used for goal attainment. The Department maintains the TUCP DBE Directory. The Directory can be accessed at the following Internet address: <https://txdot.txdotcms.com/FrontEnd/VendorSearchPublic.asp?TN=txdot&XID=2340>.

A DBE must be certified on the day the commitment is considered and at time of subcontract execution. It is the Contractor's responsibility to ensure firms identified for participation are approved certified DBE firms.

The Bidder is responsible to ensure that all submittals are checked for accuracy. Any and all omissions, deletions, and/or errors that may affect the end result of the commitment package are the sole liabilities of the bidder.

Commitments in excess of the goal are considered race-neutral commitments.

- 2.3.6. **Good Faith Effort Requirements.** A Contractor who cannot meet the Contract goal, in whole or in part, must make adequate good faith efforts to obtain DBE participation as so stated and defined in 49 CFR Part 26, Appendix A.

- 2.3.6.1. **Administrative Reconsideration.** If the Department determines that the apparent low bidder has failed to satisfy the good faith efforts requirement, the Department will notify the Bidder of the failure and will give the Bidder an opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so..

The Bidder must request an administrative reconsideration of that determination within 3 days of the date of receipt of the notice. The request must be submitted directly to the Texas Department of Transportation, Civil Rights Division, 125 East 11th Street, Austin, Texas 78701-2483.

If a request for administrative reconsideration is not filed within the period specified the determination made is final and further administrative appeal is barred.

If a reconsideration request is timely received, the reconsideration decision will be made by the Department's DBE liaison officer or, if the DBE liaison officer took part in the original determination, the Department's executive director will appoint a department employee to perform the administrative reconsideration. The employee will hold a senior leadership position and will report directly to the executive director.

The meeting or written documentation must be provided or held within 7 days of the date the request was submitted.

The Department will provide to the Bidder a written decision if the Bidder did or did not make adequate good faith efforts to meet the Contract goal. The reconsideration decision is final and is not administratively appealed to DOT.

- 2.3.7. **Determination of DBE Participation.** The work performed by the DBE must be reasonably construed to be included in the work area and NAICS work code identified by the Contractor in the approved commitment.

Participation by a DBE on a Contract will not be counted toward DBE goals until the amount of the participation has been paid to the DBE.

Payments made to a DBE that was not on the original commitment may be counted toward the Contract goal if that DBE was certified as a DBE before the execution of the subcontract and has performed a Commercially Useful Function.

The total amount paid to the DBE for work performed with its own forces is counted toward the DBE goal. When a DBE subcontracts part of the work of its Contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the subcontractor is itself a DBE.

DBE Goal credit for the DBE subcontractors leasing of equipment or purchasing of supplies from the Contractor or its affiliates is not allowed. Project materials or supplies acquired from an affiliate of the Contractor cannot directly or indirectly (second or lower tier subcontractor) be used for DBE goal credit.

If a DBE firm is declared ineligible due to DBE decertification after the execution of the DBE's subcontract, the DBE firm may complete the work and the DBE firm's participation will be counted toward the Contract goal. If the DBE firm is decertified before the DBE firm has signed a subcontract, the Contractor is obligated to replace the ineligible DBE firm or demonstrate that it has made good faith efforts to do so.

The Contractor may count 100% of its expenditure to a DBE manufacturer. According to 49 CFR 26.55(e)(1)(i), a DBE manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications.

The Contractor may count only 60% of its expenditure to a DBE regular dealer. According to 49 CFR 26.55(e)(2)(i), a DBE regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A firm may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the firm both owns and operates distribution equipment for the products. Any supplementing of regular dealers' own distribution equipment must be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis. A long-term lease with a third-party transportation company is not eligible for 60% goal credit.

With respect to materials or supplies purchased from a DBE that is neither a manufacturer nor a regular dealer, the Contractor may count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a jobsite.

A Contractor may count toward its DBE goal a portion of the total value of the Contract amount paid to a DBE joint venture equal to the distinct, clearly defined portion of the work of the Contract performed by the DBE.

2.3.8. **Commercially Useful Function.** It is the Contractor's obligation to ensure that each DBE used on federal-assisted contracts performs a commercially useful function on the Contract.

The Department will monitor performance during the Contract to ensure each DBE is performing a CUF.

Under the terms established in 49 CFR 26.55, a DBE performs a CUF when it is responsible for execution of the work of the Contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

With respect to material and supplies used on the Contract, a DBE must be responsible for negotiating price, determining quality and quantity, ordering the material, installing the material, if applicable, and paying for the material itself.

With respect to trucking, the DBE trucking firm must own and operate at least one fully licensed, insured, and operational truck used on the Contract. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the Contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement.

A DBE does not perform a CUF when its role is limited to that of an extra participant in a transaction, Contract, or project through which funds are passed to obtain the appearance of DBE participation. The Department will evaluate similar transactions involving non-DBEs to determine whether a DBE is an extra participant.

If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its Contract with its own work force, or the DBE subcontracts a greater portion of the work than would be expected on the basis of normal industry practice for the type of work involved, the Department will presume that the DBE is not performing a CUF.

If the Department determines that a DBE is not performing a CUF, no work performed by such DBE will count as eligible participation. The denial period of time may occur before or after a determination has been made by the Department.

In case of the denial of credit for non-performance of a CUF, the Contractor will be required to provide a substitute DBE to meet the Contract goal or provide an adequate good faith effort when applicable.

- 2.3.8.1. **Rebuttal of a Finding of No Commercially Useful Function.** Consistent with the provisions of 49 CFR 26.55(c)(4)&(5), before the Department makes a final finding that no CUF has been performed by a DBE, the Department will notify the DBE and provide the DBE the opportunity to provide rebuttal information.

CUF determinations are not subject to administrative appeal to DOT.

- 2.3.9. **Joint Check.** The use of joint checks between a Contractor and a DBE is allowed with Department approval. To obtain approval, the Contractor must submit a completed Form 2178, "DBE Joint Check Approval," to the Department.

The Department will closely monitor the use of joint checks to ensure that such a practice does not erode the independence of the DBE nor inhibit the DBE's ability to perform a CUF. When joint checks are used, DBE credit toward the Contract goal will be allowed only when the subcontractor is performing a CUF in accordance with 49 CFR 26.55(c)(1).

Long-term or open-ended joint checking arrangements may be a basis for further scrutiny and may result in the lack of participation towards the Contract goal requirement if DBE independence cannot be established.

Joint checks will not be allowed simply for the convenience of the Contractor.

If the proper procedures are not followed or the Department determines that the arrangements result in a lack of independence for the DBE involved, no credit for the DBE's participation as it relates to the material cost will be used toward the Contract goal requirement, and the Contractor will need to make up the difference elsewhere on the project.

- 2.3.10. **DBE Termination and Substitution.** No DBE named in the commitment submitted under Section 2.3.5. will be terminated for convenience, in whole or part, without the Department's approval. This includes, but is not

limited to, instances in which a Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

Unless consent is provided, the Contractor will not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

The Contractor, before submitting its request to terminate, must first give written notice to the DBE of its intent to terminate and the reason for the termination. The Contractor will copy the Department on the Notice of Intent to terminate.

The DBE has 5 calendar days to respond to the Contractor's notice and will advise the Contractor and the Department of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Department should not approve the prime Contractor's request for termination.

The Department may provide a shorter response time if required in a particular case as a matter of public necessity.

The Department will consider both the Contractor's request and DBE's stated position before approving the request. The Department may provide a written approval only if it agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate the DBE. If the Department does not approve the request, the Contractor must continue to use the committed DBE firm in accordance with the Contract. For guidance on what good cause includes, see 49 CFR 26.53.

Good cause does not exist if the Contractor seeks to terminate, reduce, or substitute a DBE it relied upon to obtain the Contract so that the Contractor can self-perform the work for which the DBE firm was engaged.

When a DBE subcontractor is terminated, make good faith efforts to find, as a substitute for the original DBE, another DBE to perform, at least to the extent needed to meet the established Contract goal, the work that the original DBE was to have performed under the Contract.

Submit the completed Form 2228, "DBE Termination Substitution Request," within seven (7) days, which may be extended for an additional 7 days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated. If the Department determines that good faith efforts were not demonstrated, the Contractor will have the opportunity to appeal the determination to the Civil Rights Division.

- 2.3.11. **Reports and Records.** By the 15th of each month and after work begins, report payments to meet the DBE goal and for DBE race-neutral participation on projects with or without goals. These payment reports will be required until all DBE subcontracting or material supply activity is completed. Negative payment reports are required when no activity has occurred in a monthly period.

Notify the Area Engineer if payment to any DBE subcontractor is withheld or reduced.

Before receiving final payment from the Department, the Contractor must indicate a final payment on the compliance tracking system. The final payment is a summary of all payments made to the DBEs on the project.

All records must be retained for a period of 3 years following completion of the Contract work, and must be available at reasonable times and places for inspection by authorized representatives of the Department or the DOT. Provide copies of subcontracts or agreements and other documentation upon request.

- 2.3.12. **Failure to Comply.** If the Department determines the Contractor has failed to demonstrate good faith efforts to meet the assigned goal, the Contractor will be given an opportunity for reconsideration by the Department.

A Contractor's failure to comply with the requirements of this Special Provision will constitute a material breach of this Contract. In such a case, the Department reserves the right to terminate the Contract; to deduct the amount of DBE goal not accomplished by DBEs from the money due or to become due the Contractor; or to secure a refund, not as a penalty but as liquidated damages, to the Department or such other remedy or remedies as the Department deems appropriate.

2.3.13. **Investigations.** The Department may conduct reviews or investigations of participants as necessary. All participants, including, but not limited to, DBEs and complainants using DBE Subcontractors to meet the Contract goal, are required to cooperate fully and promptly with compliance reviews, investigations, and other requests for information.

2.3.14. **Falsification and Misrepresentation.** If the Department determines that a Contractor or subcontractor was a knowing and willing participant in any intended or actual subcontracting arrangement contrived to artificially inflate DBE participation or any other business arrangement determined by the Department to be unallowable, or if the Contractor engages in repeated violations, falsification, or misrepresentation, the Department may:

- refuse to count any fraudulent or misrepresented DBE participation;
- withhold progress payments to the Contractor commensurate with the violation;
- reduce the Contractor's prequalification status;
- refer the matter to the Office of Inspector General of the US Department of Transportation for investigation; and/or
- seek any other available contractual remedy.

Special Provision to Item 6

Control of Materials



Item 6, "Control of Materials" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 1.1. "Buy America," and Section 1.2., "Buy America Exceptions," are voided and replaced by the following.

- 1.1. **Buy America.** Comply with the latest provisions of Build America, Buy America Act (BABA Act) of the Bipartisan Infrastructure Law and applicable CFR, which restrict funds being made available from Federal financial assistance programs unless all the iron products, steel products, manufactured products, and construction materials used in the project are produced in the United States. Use iron or steel products, manufactured products, or construction materials produced in the United States for all permanently installed materials and products except when defined in Section 1.1.5., "Buy America Exceptions."

A material is solely classified based on its status at the time it is brought to the work site as either an iron or steel product, construction material, manufactured product, or Section 70917(c) material. Refer to the Buy America Material Classification Sheet found in the general notes or txdot.gov for additional clarification on material classification.

- 1.1.1. **Iron or Steel.** Iron or steel products means articles, materials, or supplies that consist of iron or steel or a combination of both. For iron or steel products, manufacturing includes any process that modifies the chemical content, physical shape or size, or final finish of a product. The manufacturing process begins with initial melting and mixing and continues through fabrication (e.g., cutting, drilling, welding, bending.) and coating (e.g., paint, galvanizing, epoxy).

For iron or steel products, submit a notarized original FORM D-9-USA-1 (Department Form 1818) with the proper attachments for verification of compliance.

- 1.1.2. **Section 70917(c) Materials.** Section 70917(c) materials mean cement and cementitious material; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. Section 70917(c) materials do not require domestic sourcing or Buy America certification.

- 1.1.3. **Construction Materials.** Construction materials are classified as articles, materials, or supplies that consist of only one of the items listed in bullets below. Minor additions (as determined by the plans or the Engineer) to any of the items listed is still a construction material.

- non-ferrous metals,
- plastic and polymer-based products (including polyvinyl chloride, composite building materials, and polymers used in fiber optic cables),
- glass (including optic glass),
- fiber optic cable (including drop cable),
- optical fiber,
- lumber,
- engineered wood, or
- drywall.

For construction materials, submit a Construction Material Buy America Certification Form (Department Form 2806) for verification of compliance that all manufacturing processes, as required, occurred in the

United States. Each construction material has specific certification requirements stated below. Provide additional documentation as requested.

Details shown on the plans provide additional clarification on Buy America requirements.

For non-ferrous metals, certification requires all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.

For plastic and polymer-based products (including polyvinyl chloride, composite building materials, and polymers used in fiber optic cables), certification requires all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.

For glass (including optic glass), certification requires all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.

For fiber optic cable (including drop cable), certification requires all manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.

For optical fiber, certification requires all manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.

For lumber, certification requires all manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.

For engineered wood, certification requires all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

For drywall, certification requires all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

1.1.4. **Manufactured Products.** Materials classified as a manufactured product are currently waived from Buy America requirements by an FHWA general waiver and are not required to be domestically sourced. However, iron or steel products incorporated into manufactured products must meet iron and steel compliance requirements.

1.1.5. **Buy America Exceptions.** Use of iron, steel, construction materials, and manufactured products manufactured in the United States is required unless the material meets an exception below.

- A waiver exists exempting the material from Buy America compliance.
- The total value of the non-compliant products (other than iron or steel products) is no more than the lesser of \$1,000,000 or 5% of Total Applicable Costs for the project. Total Applicable Cost means the actual cost of all materials requiring Buy America compliance including iron, steel, or other materials that are within the scope of existing waivers. Contractor must provide documentation showing under threshold in advance for Engineer's consideration.
- The total value of foreign iron and steel products, including delivery, does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater. The Contractor must provide documentation showing under threshold in advance for the Engineer's consideration.
- Foreign steel may be allowed when the Contract contains an alternate item for a foreign source iron or steel product and the Contract is awarded based on the alternate item.

- The materials are temporarily installed or are supplies, tools, and equipment not incorporated into the project. Temporarily installed means the materials and products must be removed at the end of the project or may be removed at the Contractor's convenience with the Engineer's approval.

Special Provision to Item 8 Prosecution and Progress



Item 8, "Prosecution and Progress," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 8.1., "Prosecution of Work," is voided and replaced by the following.

Begin work within 90 calendar days after the authorization date to begin work. Prosecute the work continuously to completion within the working days specified. Unless otherwise shown on the plans, work may be prosecuted in concurrent phases if no changes are required to the traffic control plan or if a revised traffic control plan is approved. Notify the Engineer at least 24 hr. before beginning work or before beginning any new operation. Do not start new operations to the detriment of work already begun. Minimize interference to traffic.

For Contracts with callout work and work orders, begin work in the right of way within the specified time and continuously prosecute the work until completion.

Special Specification 6007

Battery Back-Up System for Signal Cabinets



1. DESCRIPTION

Install a battery back-up (BBU) system for traffic signals that provides reliable emergency power in case of utility power failure or interruption. The BBU system should also function as a power conditioner or voltage regulation device.

The BBU system should consist of inverter/charger, manual bypass switch, power transfer switch or automatic bypass switch, batteries, battery monitoring device, wiring, external cabinet or stand-alone cabinet, concrete pad, all necessary hardware and software, and any associated equipment required to operate in a field environment.

The BBU system should be able to operate a light-emitting diode- (LED-) only signalized intersection (700-W load) for 4 hr. of full runtime when utility power is disabled and under ambient temperature of 25°C. The BBU system should switch the intersection to flash mode of operation when approximately 40% of battery charge is remaining, using relay contact connection points on the front panel of the unit. The BBU system should operate the intersection in the flash mode of operation (300-W load) for an additional 2 hr. BBU system components must be rated for a minimum 1,400-W load capacity.

Design the BBU system for outdoor applications in accordance with NEMA TS2-2003, Section 2. All components of the BBU system should be rated to operate under temperature extremes of -34°C–+74°C.

2. DEFINITIONS

- 2.1. **Automatic Bypass Switch.** A unit connected between the utility power supply and the inverter/charger that can automatically switch power to the controller cabinet service panel from inverter output power to utility line power.
- 2.2. **BBU System.** Includes, but is not limited to, a manual bypass switch, automatic bypass switch or power transfer switch, inverter/charger, batteries, battery monitoring device, wiring, external cabinet, and any necessary hardware for system operation.
- 2.3. **BBU System Software.** All software associated with operation, programming, and functional requirements of the BBU system.
- 2.4. **Battery Monitoring Device.** The device that monitors battery temperatures and charge rate of the batteries used in the BBU system.
- 2.5. **Batteries.** Standard 12-V batteries wired in series to create 36-V DC – 96-V DC storage.
- 2.6. **Boost.** When enabled, the BBU system inverter/charger should automatically switch into this mode to raise the utility line voltage when it drops below a preset limit. The limit may be user-defined or use manufacturer default settings (typically 100 V AC).
- 2.7. **Buck.** When enabled, the unit should automatically switch into this mode to reduce the utility line voltage when it rises above a preset limit. The limit may be user-defined or use manufacturer default settings (typically 135 V AC).
- 2.8. **External or Stand-Alone Cabinet.** The structure that houses the system components or batteries.

- 2.9. **Inverter/Charger.** The unit that converts the DC voltage input into 120-V AC output for the traffic signal cabinet to operate. At minimum, the inverter/charger should be rated for 1,400 W.
- 2.10. **Inverter Line Voltage.** The power supplied from the BBU system inverter to the traffic signal cabinet.
- 2.11. **Manual Bypass.** Manual switch that allows user to bypass BBU power to service system equipment. The manual bypass switch switches utility line power directly to cabinet.
- 2.12. **Power Transfer Switch.** A unit connected between the utility power supply and the inverter/charger that can automatically switch from utility line power to inverter output power. The power transfer relay may be a separate unit or combined with the manual bypass switch. In case of battery voltage loss, the power transfer switch must automatically return to utility line power.
- 2.13. **Signal Operation Mode.** A signalized intersection generating a 700-W load when running in normal operation.
- 2.14. **Signal Flash Mode.** A signalized intersection generating a 300-W load when running in the flash mode of operation.
- 2.15. **Utility Line Voltage.** The 120-V AC power supplied to the BBU system.

3. EQUIPMENT

Ensure electrical materials and construction methods conform to NEC and additional local utility requirements. Furnish BBU systems prequalified by the Department. The Traffic Operations Division maintains an MPL of prequalified BBU systems. Ensure all materials and construction methods conform to the details shown on the plans, this Specification, and the pertinent requirements of the following Items.

- Item 420, "Concrete Substructures"
- Item 620, "Electrical Conductors"

Provide and install a BBU system that can fulfill the following requirements.

- 3.1. **Method of Operation.** The BBU system should operate using one or more of the following methods.
- 3.1.1. **Buck-and-Boost Method.** When the buck-and-boost functions are enabled, they should set the upper and lower control limit allowable for the utility line voltage.
- If the utility line voltage fluctuates above or below the buck-and-boost values, the BBU system should raise or lower the voltage by approximately 10%–15% of the utility line voltage to bring the voltage back within the upper and lower control limits. Provide a buck-and-boost system with preset manufacturer defaults.
- If the utility line voltage falls above or below the functional capabilities of buck and boost, then the BBU system must transfer power from the utility line voltage to the inverter line voltage.
- 3.1.2. **Standby Method.** The standby method should set upper and lower control limits for the utility line power. If the utility line voltage falls above or below the upper or lower control limits, then the BBU system should transfer power from the utility line voltage to the inverter line voltage.
- 3.1.3. **Continuous Operating Mode, Double Conversion Method.** The continuous method always supplies the cabinet with inverter line voltage. This method requires the disabling of buck-and-boost functions.
- 3.2. **BBU System Capabilities.** The BBU system should be able to provide 1,400-W peak load, with at least 80% inverter efficiency, for at least 10 sec.

The BBU system should be able to provide 700-W signal operation load for at least 4 hr., and then switch to and provide 300-W signal flash load for an additional 2-hr. minimum, when batteries are fully charged.

When the BBU system runs on battery power, the inverter/charger should enable a user to select the voltage at which the transition from normal operating load to flash mode occurs (usually 47.5 V), using relay contacts and connection points on the front panel of the inverter/charger.

The allowed transfer time, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, should be less than 65 milliseconds. The same allowable transfer time must also apply when switching from inverter line voltage to utility line voltage.

The BBU system should bypass utility line voltage whenever the voltage is outside the manufacturer's default, or a user-programmed voltage range, ± 2 V AC.

When the utility line power has been restored to a normal operating voltage for more than a user-defined setting (default 30 sec.), the BBU system should transfer from inverter line voltage to utility line voltage. The BBU system should be equipped to prevent malfunction feedback to the cabinet or the utility service.

Provide a BBU system that is compatible with TS1, TS2, and Model 170/2070 controllers and cabinet components for full runtime operation.

Unless the plans indicate otherwise, provide a BBU system in an external battery cabinet. When indicated by the plans, provide a BBU system that can be shelf-mounted in NEMA TS-1 and NEMA TS-2 cabinets, or rack-mounted for Model 170/2070 332 cabinets. Provide a manual bypass that can be shelf-mounted or attached to the side of the signal cabinet. Provide interconnect cables that are no less than 10 ft. long.

Relay contact wiring for each set of NO/NC relay contact closure terminals should be no less than 6 ft. long and #18 AWG wire. Use manufacturer recommendations for size of wire for any cable's lengths greater than 10 ft.

The BBU system should have lightning surge protection compliant with IEEE/ANSI C 62.41 and UL 1449. Provide lightning surge protection to the utility line voltage entering the inverter/charger. The surge protection device should be easily accessible and mounted externally from the inverter/charger.

The BBU system, including batteries and hardware, should be easily replaceable and should not require any special tools for installation.

The BBU system should operate in automatic fail-safe mode. Should a breaker trip the inverter/charger or power transfer switch on, the system must automatically operate from utility line power and bypass the BBU system.

As stated above, in addition to the inverter/charger, provide BBU with an external manual bypass switch and either an external automatic transfer switch or external automatic bypass switch.

The BBU system must be able to log up to 100 events. Events should date- and time-stamp faults with utility line voltage and battery voltages. At a minimum, the BBU system should log an event when:

- the utility line voltage falls above or below the upper or lower control limits,
- the BBU system automatically switches to battery power, or
- self-monitoring BBU system components fail.

3.3. **Displays, Controls, Diagnostics, and Maintenance.** The BBU system should include a front panel display. All applicable programmable functions of the operational methods described in this Specification should be viewable from the front panel display.

All events described in Section 3.2., "System Capabilities," should be viewable from the front panel display.

The BBU system software should be programmable from the front panel of the inverter/charger using a keyboard or momentary buttons, allowing user to step through menu-driven software.

Provide a 10/100 Ethernet port on the front panel of the inverter/charger.

Provide a RS232 port on the front panel of the inverter/charger.

Include software for the BBU system's operational needs. The user/operator should be able to access the system software via the Ethernet and RS232 ports on the front panel of the inverter/charger. The user should be able to read logged events and change programmable parameters from the keyboard, laptop, or local area network by the Ethernet port.

System software must be upgradeable by the RS232 port on the front panel of the inverter/charger.

- 3.4. **Inverter/Charger.** The inverter/charger is the unit that provides voltage regulation, conditioning of utility line power, DC voltage input conversion into 120-V AC output for the traffic signal cabinet to operate, emergency backup power upon loss of utility power, and temperature-compensated battery charging. At a minimum, the inverter/charger should be rated for 1,400 W. Provide at least six sets of Normally Open (NO) and Normally Closed (NC) single-pole double-throw dry contact relay closures on the front face of the inverter/charger, labeled to identify each contact. The relay closures should consist of NO/NC contact closures energized whenever the unit switches to battery power (label or mark contacts as "on battery" or equivalent), and a second set of NO/NC contact closures should be energized whenever the battery approaches 40% remaining capacity (label or mark contact as "low battery" or equivalent), which must determine when the unit will switch from normal operation to flash. A third set of NO/NC contact closures should be energized after a user-settable time after the unit switches to battery power. The contact may be labeled "timer." The remaining relays should be user-definable.

Operating temperature range for the inverter/charger and power transfer relay should be -34°F--74°F. When battery power is used, the BBU system output voltage must be between 110 V AC and 125 V AC, pure sine wave output, ≤3% THD, 60 Hz ±3 Hz.

- 3.5. **Manual Bypass Switch.** The manual bypass switch should be provided as a separate unit external to the inverter/charger unit. The manual bypass switch must consist of housing, two-position switch, terminal blocks, internal wiring, service outlet, circuit breakers, and mounting hardware. The components should be rated at least 240 V AC/30 A. Provide the manual bypass switch with No. 8 terminal blocks. The manual bypass switch should be two-position and allow the user to switch utility line power directly to the cabinet service panel. The switch positions must provide the following functions.
- In the "Bypass" position, the inverter is bypassed, and utility power is removed from the BBU and passed directly to the signal power panel.
 - In the "UPS" position, the inverter/switch is powered, and the signal circuits are supplied by the output of the inverter.

When the manual bypass switch is in the "Bypass" position, the user may replace the automatic bypass switch (or transfer switch) and the inverter/charger without interrupting power to the intersection. Provide the manual bypass switch with overcurrent protection (20-A circuit breaker).

- 3.6. **Power Transfer Switch.** These requirements are for BBU systems provided with a power transfer switch. The power transfer switch must operate such that the inverter/charger input and cabinet power panel are supplied with power from the utility line. If the utility line power is lost or requires conditioning (buck or boost), the power transfer switch must automatically connect the inverter/charger output to the cabinet power panel such that the inverter/charger output provides the power. In case of inverter/charger failure, battery failure, or complete battery discharge, the power transfer should revert to the NC (de-energized) state, where utility line power is connected to the cabinet service panel.

Size the wire going to the power transfer switch from the manual bypass switch, to and from the inverter/charger, and from the manual bypass switch to utility power service according to the system requirements.

3.7. **Automatic Bypass Switch.** These requirements are for BBU systems provided with an automatic bypass switch. The automatic bypass switch must operate such that the inverter/charger input is supplied with power from the utility line and the cabinet power panel is supplied with power from the output of the inverter/charger. In case of inverter/charger failure, battery failure, or complete battery discharge, or other loss of power from the output of the inverter/charger, the automatic bypass switch should revert to the NC (de-energized) state, where utility line power is connected to the cabinet service panel.

3.8. **Batteries.** Provide batteries from the same manufacturer and vendor as the BBU system.

Individual batteries should be 12-V type, easily replaceable, and available for purchase, or common off-the-shelf equivalent.

Select batteries sized and rated to operate a 700-W load for 4 hr. (normal operation) followed by a 300-W load for 2 hr. (flash operation), for a total of 6 hr.

Battery configuration should consist of 12-V batteries arranged for total voltages of 36, 48, 60, 72, 84, or 96.

Batteries should be deep-discharge, sealed prismatic lead-calcium based, valve-regulated, and maintenance-free.

Batteries should operate over a temperature range of -34°F—+74°F.

Batteries should indicate maximum recharge data and recharging cycles, and manufacturer defaults on the inverter/charger should not allow the recharging process to exceed the batteries' maximum values.

Connect the battery interconnect wiring to the inverter unit using a modular harness with red and black cabling that terminates into a typical power-pole style connector. Equip the harness with mating power flag-style connectors for batteries and a single insulated plug-in style connection to inverter/charger unit. Harness should allow batteries to be quickly and easily connected in any order, and keyed to ensure proper polarity and circuit configuration. Size the fusible link or device accordingly with BBU system requirements. To protect against currents exceeding each battery current rating, provide links within 3 in. of the negative and positive leads of each battery. Provide fusible links made of insulated stranded wire.

Provide insulated covers at the connection points (posts) to prevent accidental shorting.

Provide battery cables to connect battery to battery harness main cable at least 18 in., or long enough to accommodate the battery covers provided with the battery ground box, whichever is longer. Size the battery harness accordingly with BBU system requirements.

3.9. **Battery Monitoring System.** The BBU system should use a temperature-compensated battery charging system. The charging system should compensate over 2.5 mV/°C–4.0 mV/°C per cell.

Use a temperature sensor to monitor the temperature and regulate the charge rate of the batteries. Unless required otherwise by the plans, provide a temperature sensor wire as follows.

- 8 ft. long if external side-mounted cabinet is attached to existing controller cabinet
- 8 ft. long if batteries are housed in traffic signal base used for cabinet foundation and are stored on shelf within base
- 8 ft. long if a stand-alone cabinet is used

Should the temperature sensor fail, the inverter/charger should not allow the BBU system to overcharge the batteries. The BBU system should provide an alarm should the temperature sensor fail.

Recharge time for the batteries to obtain 80% or more of full battery charge capacity should not exceed 20 hr. at 70°F.

Batteries should not be allowed to charge when the battery temperature exceeds 50°F.

The BBU system should monitor battery strings within a system and set a fault indicator if the battery voltage falls below normal operating voltage.

- 3.10. **Battery Housing.** Unless plans require otherwise, provide an external battery cabinet or stand-alone BBU and battery cabinet as specified below.
- 3.10.1. **External Battery Cabinet.** The external cabinet should be NEMA Type 3R all-aluminum with stainless steel hardware, or approved equivalent. Design the external cabinet to attach on the side of a TS2 Size 6 base-mount cabinet. Mount the batteries, inverter, transfer switches, manual bypass, and associated hardware in the external cabinet.
- Equip the external cabinet with proper ventilation, electric fan, and air filter in accordance with NEMA TS2.
- Equip external cabinets with a door opening to the entire cabinet. Attach the door to the cabinet with a full-length stainless steel piano hinge or four two-bolts-per-leaf hinges. Provide a door with the same latch and lock mechanism as required for a standard traffic signal cabinet. In addition, provide a padlock clasp.
- When using battery ground boxes, an external cabinet is required for the non-battery components.
- 3.10.2. **Stand-Alone BBU and Battery Cabinet.** When required for installation by the plans, provide a stand-alone cabinet conforming to the specifications of the external BBU and battery cabinet, except that it must not mount to the controller cabinet. Design the stand-alone cabinet to attach to a concrete pad.
- 3.11. **Concrete Pad.** Provide a Class B concrete pad as a foundation for stand-alone cabinets. For external cabinets, extend the controller foundation to provide a Class B concrete pad under the external cabinet.
- 3.12. **Documentation.** Provide operation and maintenance manuals. The operation manual should include a block diagram schematic of system hardware components. The manual should include instructions for programming and viewing software features. The manual should also include uploading and downloading (communications protocol) requirements by RS232 or Ethernet port.
- Provide board-level schematics when requested.
- Provide battery documentation and replacement information.
- 3.13. **Testing.** The Department reserves the right to test BBU systems to ensure quality assurance on unit before installation and random sampling of units being provided to the State. BBU systems that fail must be removed from the Qualified Products List (QPL).
- Department QPL testing procedures must check compliance with the criteria of this Specification, including the following.
- Event logging for fault and alarm conditions
 - Demonstrated use of one or more of the operating methods described in Section 3.1., "Method of Operation"
 - Testing of ability to power a 700-W load for 4 hr., transfer to flash mode, and power a 300-W load for additional 2 hr., at an ambient temperature of +75°F
 - Testing of all components in environmental chamber (temperature ranges from -30°F--+74°F) following NEMA TS2 2003, Section 2.
- 3.14. **Warranty, Maintenance, and Support.** Provide a BBU with a warranty that requires the manufacturer to replace failed BBUs when non-operable due to defect in material or workmanship within 5 yr. of date of purchase from manufacturer. Supply a BBU with no less than 95% of the manufacturer's warranty remaining on the date when the BBU is installed and begins operating. The replacement BBU must meet this Specification. The Contractor must manage any warranty issues until the date of final acceptance.

Batteries should be warranted for full replacement for 5 yr. Batteries must be defined as bad if they are not able to deliver 80% of battery rating.

4. MEASUREMENT

This Item will be measured by each BBU system installed.

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 "BBU System" of the type of BBU cabinet specified. This price is full compensation for furnishing, installing, and testing the completed BBU system and associated equipment; mounting hardware; Class B concrete pad; software; conduit; conductors; and equipment, labor, tools, and incidentals.

Special Specification 6017

Multi-Sensor Vehicle Detection System for Signalized Intersection



1. DESCRIPTION

Furnish, install, relocate, or remove vehicle detection system (VDS) at locations shown on the plans, or as directed. Use approved VDS listed on the Department's MPL.

2. MATERIALS

2.1. **General.** Furnish, assemble, and install only new materials except as allowed for relocation of VDS equipment as shown on the plans, or as directed. Contractor must provide the VDS at each intersection as a system from the same manufacturer.

VDS must analyze sensor inputs and produce vehicle detector outputs that can serve as inputs to a traffic signal controller. Provide VDS field equipment that is compatible with existing infrastructure and software located in the Department's Traffic Management Control Centers across the state as directed. VDS must meet Department transportation sensor system protocol requirements when integrated with Traffic Management Control Center software or systems as shown on the plans.

VDS equipment must include the following.

- Cabinet control processor unit and associated devices required for system integration
- Data, power, and communication cable, connectors, and assemblies
- Sensor and mounting hardware to connect directly to a pole, mast arm, or other structure
 - Video imaging VDS (VIVDS) (fixed or variable focal length, 360° "fish-eye," or infrared),
 - Radar VDS (RVDS) (presence or advanced), or
 - Hybrid VDS (HVDS) (VIVDS and RVDS in combinations)

The VIVDS must use one or more cameras and video processing equipment to accurately provide detector calls for the intersection, approach, or roadway segment where they are installed, and provide detection as shown on the plans. A single camera placed per manufacturer recommendations must be capable of monitoring and detecting at least five lanes of traffic simultaneously.

The RVDS must use one or more radar sensors and processing equipment to accurately provide detector calls for the intersection, approach, or roadway segment where they are installed, and provide detection as shown on the plans. A single RVDS sensor placed per manufacturer recommendations must be capable of monitoring and detecting at least five lanes of traffic simultaneously. Once installed and aligned, RVDS must be able to automatically detect vehicle placement and track individual vehicles through the viewing range as specified by the manufacturer.

Ensure the system is designed and constructed with subassemblies, circuits, cards, and modules to maximize standardization and commonality.

Ensure field-replaceable parts are accessible for inspection and maintenance. Provide test points for checking essential voltages and waveforms.

VDS devices must self-recover from power failure once power is restored.

- 2.2. **Configuration and Management.** Ensure the VDS allows the user to fully configure or reconfigure the system and place detection zones locally or remotely using a monitor and input device, such as a keyboard, keypad, mouse, or touchscreen. Provide each VDS with all associated equipment required to configure and operate the system in a field environment.

Ensure that the VDS allows for the following.

- Configurable for remote monitoring
- Configurable for automated traffic signal performance measures (ATSPMs)
- Display detection zones and detection activations overlaid on live video
- Retainage of its programming in nonvolatile memory
- Stored configurations that may be modified for optimization and saved locally and remotely
- Normal operation during any configuration changes
- Adjustment or recalibration not required except when components are updated or realigned

- 2.3. **Detection Zones.** The VDS must allow a user to configure detection zones using a graphical user interface (GUI) superimposed on a video image of the roadway or simulated layout generated by the VDS processor based on sensor input. Ensure detection zones can be placed anywhere within GUI field of view (FOV). Ensure VDS detection zones can detect vehicle presence and collect traffic counts per lane. The VDS must be configurable to provide traffic volume, speed, and occupancy per lane.

Detection zones must appear as lines or polygons in the FOV. The system must allow at least eight detection zones per FOV. VDS detection zones must be able to provide detection equivalent to a 6-ft. × 6-ft. loop. Ensure zones can be sized, shaped, and overlapped to accurately detect vehicles at the locations shown on the plans.

The system must allow zones to be configured with directionality, delay, extension, and logic functions, including “AND” and “OR.” If each detection zone provides a unique output to the signal controller and the controller includes logical functions, then the VDS is not required to support logic functions.

Ensure zones displayed on a monitor provide a visual indication when vehicles are detected during configuration and operation.

- 2.4. **Detection.** VDS processor must compensate for minor sensor movement associated with environmental conditions, such as wind and thermal variations, throughout operation. Movement up to 2% of FOV at 400 ft. must not produce a false detection.

Ensure VDS processor operates regardless of whether monitoring equipment is connected. If monitoring equipment is connected to the processor unit, vehicle detections will be displayed real-time as they occur.

VDS must simultaneously detect vehicles in all lanes. VDS must be able to accurately detect approaching and departing vehicles in multiple lanes. VDS is configurable for which direction of travel to detect per lane. Ensure that vehicles traveling in any direction other than the configured direction of travel (e.g., cross-street and wrong-way traffic) do not activate a call to the controller, and that those detections could be configured to be disregarded or counted.

Ensure a constant call is placed on outputs associated with zones or sensors that are in an error state or failed, and that can be configured to be reported to the user. Ensure a constant call is placed on assigned outputs whenever the system is unable to provide accurate detection.

- 2.5. **Accuracy.** Ensure VDS individual lane accuracy for vehicle presence or advance detection is within 5% of actual.

- 2.6. **Video Imaging Camera Sensor.** Use color or thermal cameras that are provided as part of an engineered system by the VIVDS processor manufacturer or approved for use by the VIVDS processor manufacturer.

Ensure that analog cameras provide National Television Systems Committee (NTSC) composite video with a minimum resolution of at least 480 television lines (TVL).

Cameras must produce useable video suitable for detection in low light. Cameras with day and night modes must automatically and seamlessly transition between modes without producing vehicle detection errors such as false calls and missed calls. Nighttime monochrome operation must produce feature-resolvable video with luminance as low as 0.1 lux. Nighttime color operation must produce feature-resolvable video with luminance as low as 1.0 lux.

Cameras must produce resolvable features in the video with luminance as high as 10,000 lux.

Visual spectrum cameras must include automatic electronic shutter and iris control based on average scene luminance.

Variable focal length lenses must be adjustable from 6 mm–34 mm.

Processed images produced by the VIVDS must use a standard encoding format such as H.264 or MJPEG, unless otherwise shown on the plans.

The advanced camera enclosure must use indium tin oxide (ITO) technology for the heating element of the front glass. The transparent coating must not impact the visual acuity and must be optically clear.

Cable terminations at the data combiner for video and power must not require crimping or special tools.

The camera sensor must allow the user to set the focus and FOV by Wi-Fi connectivity.

The camera must produce a useable video image of the bodies of vehicles under all roadway lighting conditions, regardless of time of day. The minimum range of scene luminance over which the camera must produce a useable video image must be the minimum range from nighttime to daytime, but not less than the range of 1.0 lux–10,000 lux.

The camera electronics must include automatic gain control (AGC) to produce a satisfactory image at night.

The imager luminance signal-to-noise ratio must be more than 50 decibels (dB) with the AGC disabled.

The imager must employ three-dimensional dynamic noise reduction to remove unwanted image noise.

The camera imager must employ wide dynamic range technology to compensate for wide dynamic outdoor lighting conditions. The dynamic range must be greater than 100 dB.

The camera must be digital-signal-processor based, use a charge-coupled device sensing element, and output color video with resolution of no less than 550 TVL.

The camera sensor must include an electronic shutter control based on average scene luminance and must be equipped with an auto-iris lens that operates in tandem with the electronic shutter. The electronic shutter must operate within 1/1 sec.–1/10,000th sec.

The camera sensor must use automatic white balance.

The camera sensor must include a variable focal length lens with variable focus that can be adjusted, without opening the camera housing, to suit the site geometry by a portable interface device designed for that purpose and manufactured by the detection system supplier.

The horizontal FOV must be adjustable from 4.6°–53.6°. This camera configuration may be used for most detection approaches to minimize the setup time and spares required by the user. The lens must be a 12x zoom lens with a focal length of 3.7 mm–44.0 mm.

The lens must also have an auto-focus feature with a manual override to facilitate ease of setup.

The camera must incorporate preset positioning that stores zoom and focus positioning information. The camera must have the capability to recall the previously stored preset upon application of power.

The camera must be housed in a weathertight sealed enclosure conforming to IP-67. The housing must allow the camera to be rotated to allow proper alignment between the camera and the traveled road surface.

The camera enclosure must be equipped with a sunshield. The sunshield must include provision for water diversion to prevent water from flowing in the camera's FOV.

The camera enclosure must be design so that the pan, tilt, and rotation of the camera assembly can be accomplished independently without affecting the other settings.

The camera enclosure must include a proportionally controlled ITO heater design that maximizes heat transfer to the lens. The output power of the heater must vary with temperature, to assure proper operation of the lens functions at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure.

The glass face on the front of the enclosure must have an anti-reflective coating to minimize light and image reflections.

When mounted outdoors in the enclosure, the camera must operate in temperatures from -34°C–+74°C and humidity from 0 relative humidity (RH)–100% RH. Measurement of satisfactory video must be based on detection processor (DP) system operation.

The camera sensor must acquire its power from the sensor data combiner.

Recommended camera placement height must be between 18 ft. and 33 ft. (or 6 m and 10 m) above the roadway, and over the traveled way on which vehicles are to be detected. For optimum detection, the camera must be centered above the traveled roadway. The camera must view approaching vehicles at a distance not to exceed 350 ft. for reliable detection (height-to-distance ratio of 10:100). Camera placement and FOV must be unobstructed and as noted in the installation documentation provided by the supplier.

The video signal must be fully isolated from the camera enclosure and power cabling.

A weatherproof protective cover must be provided to protect all terminations at the camera.

- 2.6.1. **Thermal Cameras.** Thermal imaging cameras must use a long-life, uncooled vanadium oxide microbolometer thermal detector with a spectral range of 7.5 micrometers (μm)–13.5 μm .

Ensure analog video is NTSC-compliant and has a minimum NTSC array format of 320 × 240 with a 76,800-pixel effective resolution.

- 2.6.2. **Camera Enclosure.** Camera and lens assembly must be housed in an enclosure designed for outdoor use. The housing must be light in color to limit solar heating and prolong equipment life. Enclosure, including cable connections, must be waterproof and dust-tight with a NEMA Type 4 rating.

Ensure enclosures for visual spectrum cameras include a sunshield. Sunshield must protrude beyond the front edge of the enclosure and divert water away from the camera's FOV. Ensure the sunshield overhang is adjustable. Any plastics used in the construction of the enclosure must include ultraviolet inhibitors.

Ensure the enclosure allows the camera horizon to be rotated in the field during installation. Ensure camera focus and zoom can be adjusted, if necessary, without entering the camera enclosure.

The camera enclosure must be provided with mounting bracket designed to mount directly to a pole, mast arm, or other structure. Ensure the bracket allows the camera to be panned and tilted for alignment and then locked into place once properly positioned.

The camera enclosure with camera and lens installed must weigh 10 lb. or less.

Camera housing must include a means to prevent the formation of ice or condensation. If camera housing includes a heater, wiper, or other electronically controlled mechanism, such mechanism must not interfere with the camera operation or video signal.

- 2.7. **Radar Sensor.** The radar sensor must operate in the 24-gigahertz frequency band and must operate on one of seven available enumerated channels that is user-selectable.

The radar detection range must be 600 ft. minimum, $\pm 5\%$. The radar sensor must be able to track up to 20 independent objects simultaneously with object speed detection within 0 mph–150 mph ± 1.0 mph. The radar sensor must be able to detect vehicles per lane and at least up to four lanes.

The radar sensor must be housed in a weathertight sealed enclosure conforming to IP-67. The radar must operate in temperatures from -34°C – $+74^{\circ}\text{C}$ and humidity from 0% RH–100% RH. The housing must allow the radar to be adjusted to allow proper alignment between the sensor and the traveled road surface.

- 2.8. **Multi-Sensor Assembly.** Camera and radar sensors must be housed in a single enclosure assembly. The overall size of the multi-sensor enclosure must not exceed 14 in. \times 15 in. \times 17 in., and 11 lb. The effective projected area must not exceed 2.0 sq. ft.

The maximum power consumption for the multi-sensor assembly must be less than 10 W typical, 20 W peak.

- 2.9. **Sensor Data Combiner.** A sensor data combiner that combines sensor information from video and radar sensors must be employed for HVDS.

The sensor data combiner must supply primary power to each sensor unit.

The sensor data combiner must facilitate digital communications between the sensor data combiner and each sensor unit.

The sensor data combiner must receive its primary power from an AC power source using industry-standard three-conductor cabling.

The sensor data combiner must communicate with the DP using a single coax cable. Video imaging and radar data must use the single coax cable.

The sensor data combiner must also employ industry-standard Wi-Fi connectivity for remote sensor system setup using a mobile programming device such as a netbook or tablet computer. Video camera and radar sensor must be able to be configured independently.

The sensor data signal must be fully isolated from the mechanical enclosure and power cabling.

Cable terminations at the sensor data combiner must not require crimping tools.

The sensor data combiner must be housed in a weathertight sealed enclosure conforming to IP-67.

- 2.10. **DP.** Ensure the VDS includes inputs from the detectors and outputs to the traffic signal controller unit (CU) by the det, and provides data collection features, including storage and reporting of collected vehicle detection data, when shown on the plans.

VDS must be able to interface with the traffic CU by the detector rack, synchronous data link (SDLC), or another detector interface described in NEMA TS2-2016, unless otherwise shown on the plans. Solid-state detection outputs must meet NEMA TS2-2016, 6.5.2.26. The system must be able to provide 24 detection outputs. Ensure each zone and output is user-definable and previously saved zones can be redefined.

The system must be capable of functioning as a detector bus interface unit using an RS-485 SDLC connector. TS2, Type 1, VDS must include indicators that display detector output status for verification of calls.

Analog video inputs must use BNC connectors or be routed through existing loop inputs using connections designed for that purpose. Analog video outputs must use BNC or RCA connectors. Use of external cable connections to create a combined video output is not allowed.

Ensure processor includes provisions to view video image in the field and remotely.

VIVDS or HVDS processors installed in the traffic controller cabinet must use digital video or accommodate asynchronous, synchronous, and line-locked analog video as part of a complete system engineered by the manufacturer.

- 2.11. **Camera Interface Panel.** Supply the VIVDS with a camera interface panel as required by the manufacturer that provides a cabinet connection point between field wiring from VIVDS cameras and VIVDS equipment in the cabinet. The interface panel must be provided by the VIVDS manufacturer as part of a complete engineered system. The panel must include terminal facilities and surge suppression for all conductors used to connect VIVDS field equipment, including camera power and communications. Interface panels for analog cameras must include a 10-A breaker or blade-type fuses and a power terminal strip with at least eight 8/32 binder head screws for camera power connections. The panel must also have, at minimum, four coax protectors (EDCO CX06 or equivalent). Additional lightning and transient protection is allowed. All components that reside on the panel must be Department-approved. For cameras using Power over Ethernet, the interface panel must consist of surge protection meeting GR-1089.

Ensure interface panel is capable of being mounted on the sidewalls of the controller cabinet. Video connections must be isolated from earth ground.

- 2.12. **Cabling.** Supply the VDS with connector cables of the appropriate length for each installation site. Connector cables must include all conductors necessary for power, video, and communication. All cabling used must meet the minimum recommended specifications of the manufacturer.

Ensure the power and data cable connectors are IP-67 compliant to protect against intrusion of solids and water. External connectors must be quick-disconnect and keyed to prevent improper connections. All wiring must be color-coded and marked appropriately. Ensure all conductors that interface with the connector are encased in a single jacket.

If used, fiber optic cable must meet pertinent Department requirements.

If coaxial cable is used, it must be low-loss, 75-ohm, precision video cable suited for outdoor installation and approved by the manufacturer.

RS-485 and RS-232 communication cable must meet Special Specification 6004, "Networking Intelligent Transportation System (ITS) Communications Cable."

- 2.13. **Communication.** Ensure that the VDS includes at least one serial or Ethernet communication interface.

Ensure serial interfaces and connectors conform to Telecommunications Industry Association- (TIA-) 232. Ensure that the serial ports support data rates up to 115,200 bits per second, error detection using parity bits (i.e., none, even, and odd), and stop bits (1 or 2).

Ensure that wired Ethernet interfaces provide a 10/100BASE-TX connection. Verify that all unshielded twisted pair and shielded twisted pair network cables and connectors comply with TIA-568.

Ensure that wireless communications are secure and that wireless devices are Federal Communications Commission- (FCC-) certified. Ensure that the FCC identification number is displayed on an external label and that all detection system devices operate within their FCC frequency allocation.

Ensure the system can be configured and monitored by one or more communication interfaces. Ensure that all communication addresses are user-programmable.

- 2.14. **Software.** Ensure the VDS manufacturer includes all software required to configure and monitor operation of VDS field equipment locally and remotely. VDS software must be a stable production release approved by the Department's Traffic Safety Division.

Ensure VDS computer software includes a GUI that displays all configured lanes and provides visual representation of all detected vehicles. Server software must be designed to run on the Windows Server operating system (Windows Server 2012 or newer). Client workstation software must be designed to run on Microsoft Windows 10 Professional and newer.

VDS software must allow the user to program, operate, exercise, diagnose, and read status of all VDS features and functions using a laptop computer.

VDS computer software must be able to communicate with VDS field devices using TCP/IP and serial connections. The software must provide for local and remote configuration and monitoring, including display of detection zone activations on live video and modification of existing detection zone layouts.

System software must provide the user complete control over the configuration process for VDS devices and allow the user to load new firmware into nonvolatile memory of VDS field devices locally and over any supported communication channel, including TCP/IP networks.

The system software must include the ability to retrieve and store data collected by VDS field devices.

Ensure all licenses required for operation and use of software are included at no additional cost.

Software updates must be provided at no additional cost during the warranty period.

- 2.15. **Mechanical.** VDS detector card rack units must comply with dimensions specified in NEMA TS2-2016, 6.5.2.2.2.

Ensure that all parts are fabricated from corrosion-resistant materials, such as plastic, stainless steel, aluminum, or brass.

Ensure that all screws, nuts, and locking washers are stainless steel. Do not use self-tapping screws.

Ensure equipment is clearly and permanently marked with manufacturer name or trademark and part number, as well as date of manufacture or serial number.

Ensure VDS is modular in design for ease of field replacement and maintenance.

All printed circuit boards must have conformal coating to protect against moisture and fungus.

- 2.16. **Electrical.** Ensure equipment is designed to protect personnel from exposure to high voltage during installation, operation, and maintenance. Ensure all connections include the manufacturer-recommended surge protective device (SPD). SPDs must not interfere with the performance of the VDS. VDS electrical design must be modular.
- Ensure the VDS operates on nominal 120 V AC. A power converter must be provided for devices that do not operate on nominal 120 V AC. Sensors must operate between 12 V DC and 28 V DC.
- 2.17. **Environmental.** All VDS devices must operate properly while and after being subjected to the environmental testing procedures described in NEMA TS2, Section 2. VDS sensors must be able to withstand the maximum wind load defined in the Department's basic wind velocity zone map standard without any damage or loosening from structure.
- 2.18. **Connectors and Harnesses.** External connections exposed to the outdoor environment must be made with weatherproof connectors. Connectors must be keyed to ensure correct alignment and mating.
- Ensure all conductors are properly color-coded and identified. Ensure that every conductive contact surface or pin is gold-plated or made of a noncorrosive, nonrusting, conductive metal.
- RS-485 and RS-232 communication cables must:
- be shielded, twisted pair cable with a drain wire;
 - have a nominal capacitance conductor-to-conductor @ 1Khz $\geq 26\text{pF/ft.}$;
 - have nominal conductor DC resistance @ 68°F $\leq 15\text{ ohms/1,000 ft.}$;
 - be one continuous run with no splices, and
 - be terminated only on the two farthest ends of the cable.
- 2.19. **Documentation.** Provide hardcopy operation and maintenance (O&M) manuals, along with a copy of all product documentation on electronic media. Include the following documentation for all system devices and software.
- Operator manuals
 - Installation manuals with installation procedures
 - Maintenance and troubleshooting procedures
 - Manufacturer's specifications (functional, electrical, mechanical, and environmental)
- Provide certification from an independent laboratory demonstrating compliance with NEMA-TS2 environmental requirements for temperature, humidity, transients, vibration, and shock.
- Provide certification that VDS electronic equipment meets FCC Class B requirements for electromagnetic interference and emissions.
- Ensure the VDS system manufacturer has a quality assurance program for manufacturing VDS as described in this Specification. Manufacturer of the VDS must be ISO-9001 certified, or provide a copy of the company quality manual for review.
- The VDS must pass testing to ensure functionality and reliability before delivery. Test results and supporting documentation, including serial number tested, must be submitted for each VDS. If requested, manufacturing data per serial number must be provided for each VDS.
- 2.20. **Warranty.** Warrant the equipment against defects or failure in design, materials, and workmanship for at least 5 yr. or in accordance with the manufacturer's standard warranty if that warranty period is greater. The start date of the manufacturer's standard warranty will begin after the equipment has successfully passed all tests contained in the final acceptance test plan. Any VDS equipment with less than 90% of its warranty remaining after the final acceptance test is completed will not be accepted by the Department. Guarantee

that equipment furnished and installed for this project performs per the manufacturer's published specifications. Assign, to the Department, all manufacturer's normal warranties or guarantees on all electronic, electrical, and mechanical equipment, materials, technical data, and products furnished for and installed on the project.

Malfunctioning equipment must be repaired or replaced at the Contractor's expense before completion of the final acceptance test plan. Furnish replacement parts for all equipment within 10 days of notification of failure by the Department.

During the warranty period, technical support must be available by telephone within 4 hr. of the time a call is made by a user, and this support must be available from factory-certified personnel.

- 2.21. **Training.** Conduct an installation, configuration, operation, testing, maintenance, troubleshooting, and repair training class for at least 8 hr., unless otherwise directed, for up to 10 representatives designated by the Department. Submit a training session agenda, a complete set of training material, the names and qualifications of proposed instructors, and proposed training location for approval at least 30 days before the training. Conduct training within the local area unless otherwise directed. Provide one copy of course material for each attendee. Ensure that training includes:
- hands-on operation of system software and equipment,
 - explanation of all system commands and their function and use, and
 - system troubleshooting and O&M.

3. CONSTRUCTION

- 3.1. **System Installation.** Install VDS devices and configure detection zones and settings as shown on the plans, in accordance with the manufacturer's recommendations, and as directed. Provide configuration file backups, including detector placement, names, communication settings, and output assignments. Completion of the work must present a neat, workmanlike, finished appearance. Rewiring the backplane or any other cabinet panel for the system is not permitted except for power and grounding for sensor interface panels.
- VDS installer must be certified by VDS manufacturer in proper installation setup and procedures. VDS integrator must be certified by the manufacturer for training end users in the maintenance, configuration, and operation of VDS. If the VDS installer does not have VDS-manufacturer approved staff, the installer must coordinate having a VDS-manufacturer approved representative onsite the day of equipment setup and testing to ensure the system operates per the plans, and as directed.
- Mount and aim detectors in a manner that eliminates, as much as possible, environmentally generated issues that limit the VDS to properly detect actual vehicles or that create false calls (e.g., glare, object obstruction, and vibration).
- Provisions must be made for installation and configuration of software on Department computers.
- 3.2. **Temporary Use.** When shown on the plans, the VDS equipment must be used to provide vehicle detection temporarily. When the permanent vehicle detection system and related equipment are installed and made operational, the VDS equipment must be carefully removed and delivered to the location shown on the plans. Any equipment or structure damaged or lost must be replaced by the Contractor (with items approved by the Engineer) at no cost to the Department.
- 3.3. **Mechanical Components.** Ensure that all fasteners, including bolts, nuts, and washers, with a diameter less than 5/8 in. are Type 316 or Type 304 stainless steel and meet ASTM F593 and ASTM F594 for corrosion resistance. Ensure that all bolts and nuts 5/8 in. and larger in diameter are galvanized and meet ASTM A307. Separate dissimilar metals with an inert dielectric material.

- 3.4. **Wiring.** All wiring and electrical work supplying the equipment must meet the NEC. Supply and install all wiring necessary to interconnect VDS to the controller cabinet and materials necessary to complete the work. If additional cables are required, the Contractor must furnish and install them at no additional cost to the Department. Provide conductors at least the minimum size indicated on the plans and insulated for 600 V.

All wiring must be cut to proper length and free of splices between the detector and DP. This length must include cable service loops at least at the cabinet, transition point from signal pole to mast arm, and point of attachment. All cable slack must be neatly laced and placed in the bottom of the cabinet. Ensure cables are secured with clamps.

- 3.5. **Electrical Service.** The Contractor is responsible for checking the local electrical service to determine whether a modification is needed for the equipment.

- 3.6. **Grounding.** Ensure all VDS devices and supports are grounded in accordance with the NEC and manufacturer recommendations.

- 3.7. **Relocation of VDS Field Equipment.** Perform the relocation in strict conformance with the requirements herein and as shown on the plans. Completion of the work must present a neat, workmanlike, finished appearance. Maintain safe construction practices during relocation.

Inspect the existing VDS field equipment with a representative from the Department, and document any evidence of damage before removal. Conduct a pre-removal test in accordance with the testing requirements contained in this Specification to document operational functionality. Remove and deliver equipment that fails inspection to the Department.

Before removal of existing VDS field equipment, disconnect and isolate the power cables from the electric power supply and disconnect all communication cabling from the equipment located inside the cabinet. Coil and store power and communication cabling inside the cabinet until it can be relocated. Remove existing VDS field equipment as shown on the plans only when authorized by the Engineer.

Use care to prevent damage to any support structures. Any equipment or structure damaged or lost must be replaced by the Contractor (with items approved by the Engineer) at no cost to the Department.

Make all arrangements for connection to power and communications, including any permits required for the work under the Contract. Provide conductors for the power connection at least the minimum size indicated on the plans and insulated for 600 V. Meet NEC requirements.

- 3.8. **Removal of VDS Field Equipment.** Perform the removal in strict conformance with the requirements herein and as shown on the plans. Completion of the work must present a neat, workmanlike, finished appearance. Maintain safe construction practices during removal.

Disconnect and isolate any existing electrical power supply before removal of existing field equipment.

Use care to prevent damage to any support structures. Any equipment or structure damaged or lost must be replaced by the Contractor (with items approved by the Engineer) at no cost to the Department.

All materials not designated for reuse or retention by the Department will become the property of the Contractor and must be removed from the project site at the Contractor's expense. Deliver items to be retained by the Department to a location shown on the plans or in the General Notes. The Contractor is fully responsible for any removed equipment until released by the Engineer.

- 3.9. **Contractor Experience Requirements.** Contractor or designated subcontractor must meet the following experience requirements.

- 3.9.1. **Minimum Experience.** Three years of continuous existence offering services in VDS installation.

3.9.2. **Completed Projects.** Three completed projects in which personnel installed, tested, and integrated VDS field equipment. The completed installations must have been in continuous satisfactory operation for at least 1 yr.

3.9.3. **Equipment Experience.** One project (may be one of the three projects in Section 3.9.2., "Completed Projects") in which the personnel worked in cooperation with technical representatives of the equipment supplier to perform installation, integration, or acceptance testing of the work. The Contractor is not required to furnish equipment on this project from the same supplier that was referenced in the qualification documentation.

Submit the names, addresses, and telephone numbers of the references that can be contacted to verify the experience requirements.

4. TESTING

Ensure that the following tests are performed on equipment and systems unless otherwise shown on the plans. The Department may witness all the tests.

4.1. **Test Procedures Documentation.** Provide an electronic copy of the test procedures and blank data forms 60 days before testing for each test required on this project. Include the sequence of the tests in the procedures. The Engineer will approve test procedures before submission of equipment for tests. Conduct all tests in accordance with the approved test procedures.

Record test data and quantitative results on the data forms. Ensure the data forms are signed by an authorized representative (company official) of the equipment manufacturer.

4.2. **Design Approval Test.** Ensure that the VDS has successfully undergone a design approval test that confirms compliance with the environmental requirements of this Specification.

Provide a certification and test report from an independent testing laboratory as evidence of a successfully completed design approval test. Ensure that the testing by this laboratory is performed in accordance with this Specification.

4.3. **Demonstration Test.** Conduct a demonstration test on applicable equipment at an approved Contractor facility. Notify the Engineer 10 working days before conducting this testing. Perform the following tests.

4.3.1. **Examination of Product.** Examine each unit carefully to verify that the materials, design, construction, markings, and workmanship comply with this Specification.

4.3.2. **Continuity Tests.** Check the wiring to determine conformance with this Specification.

4.3.3. **Operational Test.** Operate each unit for at least 15 min. to permit equipment temperature stabilization and observation of enough performance characteristics to ensure compliance with this Specification.

4.4. **Stand-Alone Test.** Conduct a stand-alone test for each unit after installation. The test must exercise all stand-alone (non-network) functional operations. Notify the Engineer 5 working days before conducting this test.

4.4.1. **Performance Test.** Ensure the VDS meets functional performance requirements of Section 2.5., "Accuracy," using the following methods.

Verify presence detection accuracy at installed field sites by comparing sample data collected from the detection system to ground truth data collected by human observation. Collect samples and ground truth data for each detection zone for at least 5 min. during a peak period and 5 min. during an off-peak period.

Ensure the sample period for each zone includes at least three vehicles. Perform tests in the presence of the Engineer.

Recorded data of all sensors showing vehicle detections during a 24-hr. period at each intersection must be provided within 30 days upon request. These data must allow verification of proper sensor placement, FOV, focus, detection zone placement, and operation.

- 4.5. **System Integration Test.** Conduct a system integration test on the complete functional system. Demonstrate all control and monitor functions for each system component and operate the system for 72 hr. Supply two copies of the system operations manual before the system integration test. Notify the Engineer 10 working days before conducting this testing. The Department may witness all the tests. Conduct a system integration test on the complete functional system. Demonstrate all control and monitor functions for each system component for 72 hr. Supply two copies of the system operations manual before the system integration test. Notify the Engineer 10 working days before conducting this testing.

- 4.6. **Consequences of Test Failure.** If a unit fails a test, submit a report describing the nature of the failure and the actions taken to remedy the situation before modification or replacement of the unit. If a unit requires modification, correct the fault and then repeat the test until successfully completed. Correct minor discrepancies within 30 days of written notice to the Engineer. If a unit requires replacement, provide a new unit and then repeat the test until successfully completed. Major discrepancies that will substantially delay receipt and acceptance of the unit will be enough cause for rejection of the unit.

If a failure pattern develops in similar units within the system, implement corrective measures, including modification or replacement of units, on all similar units within the system as directed. Perform the corrective measures without additional cost or extension of the Contract period.

- 4.7. **Final Acceptance Test.** Conduct a final acceptance test on the complete functional system. Demonstrate all control, monitor, and communication requirements, and operate the system for 90 days. The Engineer will furnish a letter of approval stating the first day of the final acceptance test. The completion of the final acceptance test will occur when system downtime due to mechanical, electrical, or other malfunctions to equipment furnished or installed does not exceed 72 hr. and any individual points of failure identified during the test period have operated free of defects.

- 4.8. **Consequences of Final Acceptance Test Failure.** If a defect within the system is detected during the final acceptance test, document and correct the source of failure. Once corrective measures are taken, monitor the point of failure until a consecutive 30-day period free of defects is achieved.

If, after completion of the initial test period, the system downtime exceeds 72 hr. or individual points of failure have not operated for 30 consecutive days free of defects, extend the test period by an amount of time equal to the greater of the downtime more than 72 hr. or the number of days required to complete the performance requirement of the individual point of failure.

- 4.9. **Relocation and Removal.**

- 4.9.1. **Pre-Test.** Tests may include, but are not limited to, physical inspection of the unit and cable assemblies. Include the sequence of the tests in the procedures along with acceptance thresholds. Contractor must resubmit, if necessary, rejected test procedures for final approval within 10 days. Review time is in calendar days. Conduct all tests in accordance with the approved test procedures.

Conduct basic functionality testing before removal of VDS field equipment. Test all functional operations of the equipment in the presence of representatives of the Contractor and the Department. Ensure that both representatives sign the test report indicating that the equipment has passed or failed each function. Once removed, the equipment will become the responsibility of the Contractor until accepted by the Department. Compare test data before removal to test data after installation. The performance test results after relocation must be equal to or better than the test results before removal. Repair or replace those components within the system that failed after relocation but passed before removal.

- 4.9.2. **Post-Test.** Testing of the VDS field equipment is to relieve the Contractor of system maintenance. The Contractor will be relieved of the responsibility for system maintenance in accordance with Item 7, "Legal Relations and Responsibilities," after a successful test period. The Contractor will not be required to pay for electrical energy consumed by the system.

After all existing VDS field equipment has been installed, conduct approved continuity, stand-alone, and performance tests. Furnish test data forms containing the sequence of tests, including all the data taken as well as quantitative results for all tests. Submit the test data forms to the Engineer at least 30 days before the day the tests are to begin. Obtain approval of test procedures before submission of equipment for tests. Send at least one copy of the data forms to the Engineer.

Conduct an approved stand-alone test of the equipment installation at the field sites. At minimum, exercise all stand-alone (non-network) functional operations of the field equipment installed per the plans as directed. Complete the approved data forms with test results and submit to the Engineer for review and either acceptance or rejection of equipment. Give at least 30 working days' notice before all tests to permit the Engineer or their representative to observe each test.

The Department will conduct approved VDS field equipment system tests on the field equipment with the central equipment. The tests will, at minimum, exercise remote control functions and confirm communication with field equipment.

If any unit fails to pass a test, prepare a report and deliver it to the Engineer. Describe the nature of the failure and the corrective action needed. If the failure is the result of improper installation or damage during reinstallation, reinstall or replace the unit and repeat the test until the unit passes successfully, at no additional cost to the Department or extension of the Contract period.

5. MEASUREMENT

The VDS will be measured as each major system component furnished, installed, relocated, made fully operational, and tested or removed in accordance with this Special Specification or as directed.

The VDS communication cable will be measured by the foot of the appropriate media type furnished, installed, made fully operational, and tested in accordance with this Specification or other referenced Special Specifications, or as directed.

When the VDS is used temporarily, it will be measured as each system furnished, installed, and made fully operational, including reconfiguration and removal if required by the plans, and tested in accordance with this Special Specification or as directed.

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.

When recorded data are required, they will be paid for by each VDS recorded.

6. PAYMENT

- 6.1. **Furnish and Install.** The work performed, materials, and all accompanying software furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "VDS Processor System," "VDS Sensor Assembly" of the various types, "VDS Central Control Software," "VDS ATSPM Setup," "VDS Temporary," "VDS Cabling," and "VDS Recording." These prices are full compensation for furnishing, configuring, placing, and testing all materials and equipment, and for all tools, labor, equipment, hardware, operational software packages, supplies, support, personnel training, shop drawings, documentation, and incidentals.

These prices include all interfaces required for the field and remote communication links along with any associated peripheral equipment, including cables; all associated mounting hardware and associated field equipment; and incidentals required for a complete and fully functional video-imaging VDS.

- 6.2. **Install Only.** The work performed and materials furnished in accordance with this Item will be paid for at the unit price bid for "VDS Processor System (Install Only)," "VDS Sensor Assembly (Install Only)," "VDS Temporary (Install Only)," and "VDS Cabling (Install Only)." This price is full compensation for installing, configuring, integrating, and testing the completed installation, including VDS equipment, voltage converters or injectors, cables, connectors, associated equipment, and mounting hardware, and for all labor, tools, equipment, documentation, testing, training, software, and incidentals necessary to complete the work.
- 6.3. **Relocate.** The work performed and materials furnished in accordance with this Item will be paid for at the unit price bid for "VDS Processor System (Relocate)," "VDS Sensor Assembly (Relocate)," "VDS Temporary (Relocate)," and "VDS Cabling (Relocate)." This price is full compensation for relocating and making fully operational existing equipment; furnishing and installing additional cables or connectors; testing, delivery, and storage of components designated for salvage or reuse; and all labor, tools, equipment, and incidentals necessary to complete the work.
- 6.4. **Remove.** The work performed and materials furnished in accordance with this Item will be paid for at the unit price bid for "VDS Processor System (Remove)," "VDS Sensor Assembly (Remove)," "VDS Temporary (Remove)," and "VDS Cabling (Remove)." This price is full compensation for removing existing equipment as shown on the plans; testing, delivery, and storage of components designated for salvage; and all labor, materials, tools, equipment, and incidentals necessary to complete the work.