

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 8/28/2009

Control	1200-06-008
Project	STP 2010(112)
Highway	SH 45
County	TRAVIS

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an addendum notification which details the changes and the respective proposal pages which were added and/or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped "This Proposal Issued for Informational Purposes."

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

SUBJECT: PLANS AND PROPOSAL ADDENDUMS

PROJECT: STP 2010(112)

CONTROL: 1200-06-008

COUNTY: TRAVIS

LETTING: 09/09/2009

REFERENCE NO: 0828

PROPOSAL ADDENDUMS

- _ PROPOSAL COVER
- X BID INSERTS (SH. NO.: 1-7)
- X GENERAL NOTES (SH. NO.: I,M,N)

- _ SPEC LIST (SH. NO.:)
- _ SPECIAL PROVISIONS:)
- ADDED:

DELETED:

- _ SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

X OTHER: Plan Sheets 6,8,14,16,20,21

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

Bid Insert	Page 1-7	Delete Item 132-2003. Add Item 132-2005.
General Notes	Sheet I	Section Item 132 change embankment from B to C and delete District Laboratory.
	Sheet M	Section 340 Replace District Laboratory with Engineer.
	Sheet N	Section 340 Replace Austin District Laboratory with Engineer.
Plan Sheets	Sheet 6	Changes to General Notes Sheet I as described above.
	Sheet 8	Changes to General Notes Sheets M and N as described above.
	Sheet 14	Replace Item 132-2003 with Item 132-2005.
	Sheet 16	Change Item 132 Type B to Type C.
	Sheets 20,21	"KEY" (#5) Change Type B to Type C.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	100	2002	002	PREPARING ROW DOLLARS and CENTS	STA	9.200	1
	104	2022		REMOVING CONC (CURB AND GUTTER) DOLLARS and CENTS	LF	653.000	2
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	2,079.000	3
	132	2005		EMBANKMENT (FINAL)(ORD COMP)(TY C) DOLLARS and CENTS	CY	219.000	4
	160	2003		FURNISHING AND PLACING TOPSOIL (4") DOLLARS and CENTS	SY	4,162.000	5
	164	2023	002	CELL FBR MLCH SEED(PERM)(RURAL)(CLAY) DOLLARS and CENTS	SY	4,162.000	6
	164	2029	002	CELL FBR MLCH SEED(TEMP)(WARM) DOLLARS and CENTS	SY	2,081.000	7
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	104.000	8
	169	2006	002	SOIL RETENTION BLANKETS (CL 2) (TY F) DOLLARS and CENTS	SY	701.000	9
	247	2044	033	FL BS (CMP IN PLC)(TY A GR 4)(FNAL POS) DOLLARS and CENTS	CY	827.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	310	2005		PRIME COAT (MC-30 OR AE-P) DOLLARS and CENTS	GAL	953.000	11
	316	2190		AGGR(TY-D GR-4 SAC-B) DOLLARS and CENTS	CY	41.000	12
	316	2404		ASPH (CHFRS-2P) DOLLARS and CENTS	GAL	2,002.000	13
	340	2011	003	D-GR HMA(METH) TY-B PG64-22 DOLLARS and CENTS	TON	433.000	14
	340	2048	003	D-GR HMA(METH) TY-C SAC-B PG70-22 DOLLARS and CENTS	TON	520.000	15
	351	2002		FLEXIBLE PAVEMENT STRUCTURE REPAIR(6") DOLLARS and CENTS	SY	500.000	16
	354	2045		PLANE ASPH CONC PAV (2") DOLLARS and CENTS	SY	3,207.000	17
	401	2001		FLOWABLE BACKFILL DOLLARS and CENTS	CY	18.000	18
	432	2002		RIPRAP (CONC)(5 IN) DOLLARS and CENTS	CY	10.000	19
	464	2009	003	RC PIPE (CL III)(36 IN) DOLLARS and CENTS	LF	53.000	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2292		SET (TY II)(36 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	1.000	21
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	22
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	4.000	23
	506	2002	010	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	30.000	24
	506	2009	010	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	30.000	25
	506	2034	010	TEMPORARY SEDIMENT CONTROL FENCE DOLLARS and CENTS	LF	180.000	26
	528	2004		LANDSCAPE PAVERS DOLLARS and CENTS	SY	1,130.000	27
	529	2004		CONC CURB & GUTTER (TY II) DOLLARS and CENTS	LF	389.000	28
	644	2001		INS SM RD SN SUP&AM TY 10BWG(1) SA(P) DOLLARS and CENTS	EA	4.000	29
	644	2004		INS SM RD SN SUP&AM TY 10BWG(1) SA(T) DOLLARS and CENTS	EA	1.000	30

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	644	2006		INS SM RD SN SUP&AM TY 10BWG(1) SA(U) DOLLARS and CENTS	EA	1.000	31
	644	2027		INS SM RD SN SUP&AM TY S80(1) SA(U) DOLLARS and CENTS	EA	1.000	32
	658	2314		INSTL OM ASSM (OM-2X)(WC) GND DOLLARS and CENTS	EA	1.000	33
	662	2016		WK ZN PAV MRK NON-REMOV (W) 24" (SLD) DOLLARS and CENTS	LF	24.000	34
	662	2029		WK ZN PAV MRK NON-REMOV (W)36"(YLD TRI) DOLLARS and CENTS	EA	5.000	35
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	100.000	36
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	4,005.000	37
	662	2099		WK ZN PAV MRK REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	4,328.000	38
	666	2002		REFL PAV MRK TY I (W) 4" (BRK)(090MIL) DOLLARS and CENTS	LF	330.000	39
	666	2011		REFL PAV MRK TY I (W) 4" (SLD)(090MIL) DOLLARS and CENTS	LF	2,555.000	40

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2035		REFL PAV MRK TY I (W) 8" (SLD)(090MIL) DOLLARS and CENTS	LF	1,062.000	41
	666	2047		REFL PAV MRK TY I (W) 24"(SLD)(090MIL) DOLLARS and CENTS	LF	12.000	42
	666	2053		REFL PAV MRK TY I (W) (ARROW) (090MIL) DOLLARS and CENTS	EA	4.000	43
	666	2092		REFL PAV MRK TY I(W)(UTURN ARW)(090MIL) DOLLARS and CENTS	EA	1.000	44
	666	2095		REFL PAV MRK TY I (W) (WORD) (090MIL) DOLLARS and CENTS	EA	5.000	45
	666	2098		REF PAV MRK TY I(W)18"(YLD TRI)(090MIL) DOLLARS and CENTS	EA	15.000	46
	666	2110		REFL PAV MRK TY I (Y) 4" (SLD)(090MIL) DOLLARS and CENTS	LF	2,386.000	47
	666	2142		REF PAV MRK TY II (W) 4" (BRK) DOLLARS and CENTS	LF	330.000	48
	666	2145		REF PAV MRK TY II (W) 4" (SLD) DOLLARS and CENTS	LF	2,555.000	49
	666	2153		REF PAV MRK TY II (W) 8" (SLD) DOLLARS and CENTS	LF	1,062.000	50

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2157		REF PAV MRK TY II (W) 24" (SLD) DOLLARS and CENTS	LF	12.000	51
	666	2160		REF PAV MRK TY II (W) (ARROW) DOLLARS and CENTS	EA	4.000	52
	666	2172		REF PAV MRK TY II (W) (UTURN ARROW) DOLLARS and CENTS	EA	1.000	53
	666	2173		REF PAV MRK TY II (W) (WORD) DOLLARS and CENTS	EA	5.000	54
	666	2174		REF PAV MRK TY II (W) 18" (YLD TRI) DOLLARS and CENTS	EA	15.000	55
	666	2178		REF PAV MRK TY II (Y) 4" (SLD) DOLLARS and CENTS	LF	2,386.000	56
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	113.000	57
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	5,675.000	58
	677	2003		ELIM EXT PAV MRK & MRKS (8") DOLLARS and CENTS	LF	809.000	59
	677	2008		ELIM EXT PAV MRK & MRKS (ARROW) DOLLARS and CENTS	EA	5.000	60
	677	2018		ELIM EXT PAV MRK & MRKS (WORD) DOLLARS and CENTS	EA	5.000	61

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	738	2005		CLEANING/SWEEPING (FRONTAGE ROAD) DOLLARS and CENTS	CYC	3.000	62
	764	2001		DRAIN INLET CLEANING DOLLARS and CENTS	EA	1.000	63
	6834	2002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	64

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GENERAL NOTES

BASIS OF ESTIMATE

ITEM	DESCRIPTION	RATE **	BASIS	QUANTITY
160	TOPSOIL	1 CY/7 SY	595 CY	4162 SY
164	SEED FOR EROSION CONTROL (TEMP)	4840 SY/AC	0.43 AC	2081 SY
	(PERM)	4840 SY/AC	0.86 AC	4162 SY
166	FERTILIZER (13-13-13)	1/8 LB/SY		
168	VEGETATIVE WATERING (ITEM 164)(TEMP)	10 GAL/SY	2081 SY	21 MG
	(ITEM 164)(PERM)	20 GAL/SY	4162 SY	83 MG
204	SPRINKLING (DUST)	30 GAL/CY		
	(ITEM 132)	30 GAL/CY		
	(ITEM 247)	30 GAL/CY		
210	ROLL (FLAT WHEEL) (ITEM 247)	1 HR/200 TON		
	(ITEM 316)	1 HR/6000 SY		
210	ROLL (TAMPING) (ITEM 132)	1 HR/200 CY		
210	ROLL (HEAVY TAMP) (ITEM 132)	1 HR/200 CY		
210	ROLL (LT PNEU TIRE) (ITEM 132)	1 HR/500 CY		
	(ITEM 247)	1 HR/200 TON		
	(ITEM 316)(ONE COURSE)	1 HR/6000 SY		
247	FLEX BASE (COMPLETE IN PLACE) (TY A GR 4)	132 LB/CF	22,329 CF	1474 TON
	(TY A GR 4)	3564 LB/CY	827 CY	1474 TON
	(TY A GR 4)	27 CF/CY	22,329 CF	827 CY
310	PRIME COAT (MC-30 OR AE-P)	0.20 GAL/SY	4767 SY	953 GAL
316	SURFACE TREATMENTS ONE COURSE SURFACE TREATMENT	<u>TOTAL</u>		
	ASPHALT (CHFRS-2P)	0.42 GAL/SY	4767 SY	2002 GAL
	AGGREGATE (TY D GR 4)	1 CY/115 SY	4767 SY	41 CY

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ITEM	DESCRIPTION	RATE **	BASIS	QUANTITY
340	DENSE-GRADED HOT-MIX ASPHALT (METHOD) TY B PG 64-22	110 LB/SY/IN	1968 SY	433 TON
340	DENSE-GRADED HOT-MIX ASPHALT (METHOD) TY C SAC-B PG 70-22	110 LB/SY/IN	4727 SY	520 TON
677	ELIMINATE PAVEMENT MARKINGS (SEAL COAT METHOD) ASPHALT (CHFRS-2P) AGGREGATE (TY B GR 5 SAC-B)	0.17 GAL/SY 1 CY/120 SY		

** For Informational Purposes, Only.

GENERAL

References to manufacturer’s trade name or catalog numbers are for the purpose of identification only. Similar materials from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved, except for Roadway Illumination, Electrical, and Traffic Signal Items.

Accrue contract time charges through the Contractor’s completion of the final punchlist.

Meet weekly with the Engineer to notify him/her of planned work for the upcoming week. Provide a three-week “look ahead,” as well as all work performed over the past week.

Blade the side slopes to remove all grass from the area of construction before placing flexible base on that portion of the roadway to be widened, leveled-up, seal coated/surfaced treated, or Hot Mix Asphaltic Concrete Pavement (HMACP) overlaid. Blade the sod back onto the side slopes after the proposed items of work have been completed. Consider subsidiary to pertinent Items.

Equip all construction equipment used in roadway work with a permanently mounted 360° revolving or strobe warning light with amber lens. Light will have a minimum lens height and diameter of 5 inches and mounting height of not less than 6 feet above the roadway surface and be visible from all sides. Attach at each side of the rear end of the construction equipment an approved orange warning flag mounted not less than 6 feet above the roadway surface.

Overhead and underground utilities exist in the vicinity of the project. The exact location of underground utilities is not known. Contact the Texas Excavation Safety Systems (TESS) or DIG TESS at 1-800-344-8377 and any other area utility companies, which may not be part of DIGG-TESS, for exact locations at least 48 hours before commencing any work that might affect present utilities.

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For power lines rated 50kV or below, no equipment will be permitted within 10 feet of the power lines, as indicated in Occupational Safety and Health Administration (OSHA) Standards. For power lines rated over 50 kV, refer to OSHA Standards. Notify the Engineer if there are any conflicts with high voltage electrical lines. Notify the owner of the particular Electrical Utility if work will be required within the minimum distance as stated in OSHA Standards.

If working near power lines, comply with the appropriate sections of Local Legal Requirements, Texas State Law, and Federal Regulations relating to the type of work involved.

In the event of unforeseen utility adjustment, the Contractor will prosecute their work in such a manner and sequence as to allow the adjustments to be made. If in the opinion of the Engineer, the Contractor is delayed by virtue of the adjustment of these utilities, an extension of working time may be granted, if necessary.

Superelevate all curves to conform to the slope(s) of the existing curves, as directed. Consider subsidiary to the pertinent Items.

Match existing cross slopes, as directed. Consider subsidiary to the pertinent Items.

Provide a smooth, clean sawcut along the existing asphalt pavement structure, as directed. Consider subsidiary to the pertinent Items.

Remove all construction debris and surplus material generated by the construction work within the project limits. Perform this work as directed. Consider subsidiary to the pertinent Items.

Trim vegetation around signs and other obstructions. Consider subsidiary to pertinent Items.

Supply litter barrels in enough numbers at locations as directed to control litter within the project. Consider subsidiary to pertinent Items.

Use a self-contained vacuum broom to sweep the roadway and keep it free of sediment as directed. Maintain one self-contained vacuum in good condition at the project site at all times.

Protect all areas of the right of way, which are not included in the actual limits of the proposed construction areas from destruction. Exercise care to prevent damage to trees, vegetation, and other natural surroundings. Areas not to be disturbed will be as directed. Restore any area disturbed because of the Contractor's operations to a condition as good as, or better than, before the beginning of work.

Damage to existing pipes and SET's due to Contractor operations shall be repaired at Contractor's expense.

All locations used for storing construction equipment, materials, and stockpiles of any type, within the right of way, will be as directed. Use of right of way for these purposes will be

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restricted to those locations where driver sight distance to businesses and side street intersections is not obstructed and at other locations where an unsightly appearance will not exist.

The Project Superintendent will be capable of speaking English and will be available on the project at all times when work is being performed including subcontractor work. The Superintendent will be available and on-call 24 hours a day.

During evacuation periods for Hurricane events, as predicted by National Oceanic and Atmospheric Administration (NOAA), the Contractor will cooperate with Department requirements for the restricting of Lane Closures and arranging for Traffic Control to facilitate Coastal Evacuation Efforts. In addition, the Contractor's assistance may be requested outside of the Project Limits.

Remove and replace, at the Contractor's expense, and as directed, all defective work, which was caused by the Contractor's workforce, materials, or equipment.

Storm Water Pollution Prevention Plan/Water Pollution Abatement Plan (SW3P/WPAP) Notes

For projects in the recharge zone or contributing zone of Williamson, Travis and Hays Counties, plans must include the sheet titled "TCEQ Requirements for Recharge Zone of the Edwards Aquifer" or "TCEQ Requirements for Contributing Zone of the Edwards Aquifer." Compliance with the notes on these sheets is required for TCEQ construction approval. The Engineer will be the sole judge as to the timing of all installations. Work will not progress until the Engineer has approved each installation.

Maintain erosion control features according to the TxDOT SW3P sheet.

In the event that significant contamination is encountered based on odors, visual evidence, or vapor monitoring, immediately contact the Engineer in accordance with Item 4.3 of the general provisions of the Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. The Engineer may suspend work wholly or in part to determine the coordination/management for the testing, removal and disposal of hazardous materials that might be necessary according to all applicable rules, laws and regulations.

When any abandoned well is encountered, cease construction operations in this area and notify the Engineer who will coordinate the proper plugging procedures with Texas Commission on Environmental Quality (TCEQ).

Plug any drill holes, resulting from core sampling on-site or down-gradient of the site, with concrete from the bottom of the hole to the top of the hole so that water and contaminants are not allowed to enter the subsurface environment.

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Restrict construction vehicles from traversing or utilizing existing roadways, unprotected construction areas, and areas with vegetative cover.

Maintain vehicles at designated maintenance sites, unless otherwise approved.

Transport any soils contaminated during construction off of the proposed project from the site and properly dispose of off-site, off the recharge zone, and off any area draining to the recharge zone of the Edwards Aquifer.

Collect wastewater generated on-site by chemical toilets and transport off the recharge zone and dispose of properly.

Suspend all activities near any significant recharge features, such as sinkholes, caves, or any other subterranean openings that are discovered during construction or core sampling. Do not proceed until the designated geologist or TCEQ representative is present to evaluate and approve remedial action.

Locate aboveground storage tanks kept on-site for construction purposes over bermed impervious liners as to not allow any leakage into underlying soils. Additionally, the containment will be sized to capture 150% of the total volume of fluids stored on-site within the storage area.

No blasting will be allowed within 300 feet of a geologic feature of significant recharge potential, unless otherwise approved. Known locations of these features are available from the Area Engineer.

ITEM 5 – CONTROL OF THE WORK

Before Contract letting, bidders may obtain from the Engineer's office, the earthwork information. If copies of the actual cross-sections (paper copies) are requested, they will be available at the Engineer's office for borrowing by copying companies for the purpose of making copies for the bidder, at the bidder's expense. In addition, cross-sections will be available in electronic format, upon request, at no cost to the bidder.

GEOPAK earthwork output listings for this project are available upon request on diskettes at the Area Engineer's office.

Mark and maintain 100-foot station intervals for the duration of the project. Consider subsidiary to pertinent Items.

Furnish, to the Engineer, a list of the final centerline elevations.

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ITEM 6 - CONTROL OF MATERIALS

Article 6.5

Give a minimum of 24 hours notice for materials, which require inspection at the plant.

ITEM 7 – LEGAL RELATIONS AND RESPONSIBILITIES

Article 7.19

Do not initiate activities in a Project Specific Location (PSL) associated with a U.S. Army Corps of Engineers (USACE) jurisdictional area that have not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Associated defined here means materials are delivered to or from the PSL. The jurisdictional area includes all waters of the U.S. including wetlands or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. Consult with the USACE regarding activities, including Project Specific Locations (PSLs) that have not been previously evaluated by the USACE. Provide the Department with a copy of all consultations or approvals from the USACE before initiating activities.

Proceed with activities in PSLs that do not affect a USACE jurisdictional area if a self-determination has been made that the PSL is non-jurisdictional or proper USACE clearances have been obtained in jurisdictional areas or have been previously evaluated by the USACE as part of the permit review of this project. Document any determinations that their activities do not affect a USACE jurisdictional area. Maintain copies of their determinations for review by the Department or any regulatory agency.

The Contractor must document and coordinate with the USACE, if required, before any excavation hauled from or embankment hauled into a USACE jurisdictional area by either (1) or (2) below.

(1) Restricted Use of Materials for the Previously Evaluated Permit Areas. Document both the project specific location (PSL) and their authorization. Maintain copies for review by the Department or any regulatory agency. When an area within the project limits has been evaluated by the USACE as part of the permit process for this project:

- a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110, Excavation, is used for permanent or temporary fill (Item 132, Embankment) within a USACE jurisdictional area;
- b. Suitable embankment (Item 132) from within the USACE jurisdictional area is used as fill within a USACE evaluated area; and,
- c. Unsuitable excavation or excess excavation [“Waste”] (Item 110, Excavation) that is disposed of at an approved location within a USACE evaluated area.

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- (2) Contractor Materials from Areas Other than Previously Evaluated Areas.** Provide the Department with a copy of all USACE coordination or approvals before initiating any activities in a jurisdictional area within the project limits that has not been evaluated by the USACE or for any off right of way locations used for the following, but not limited to, haul roads, equipment staging areas, borrow and disposal sites:
- a. Item 132, Embankment, used for temporary or permanent fill within a USACE jurisdictional area; and,
 - b. Unsuitable excavation or excess excavation [“Waste”] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

The total area estimated to be disturbed for this project is 1.55 acres. The disturbed area in this project, all project locations in the Contract, and the Contractor project specific locations (PSLs), within 1 mile of the project limits, for the Contract will further establish the authorization requirements for storm water discharges. The Department will obtain an authorization to discharge storm water from the Texas Commission on Environmental Quality (TCEQ) for the construction activities shown on the plans. The Contractor is to obtain required authorization from the TCEQ for Contractor PSLs for construction support activities on or off the ROW. When the total area disturbed in the Contract and PSLs within 1 mile of the project limits exceeds 5 acres, provide a copy of the Contractor NOI for PSLs on the ROW to the Engineer and to the local government that operates a separate storm sewer system.

This project required formal consultation, permits, or both with environmental resource agencies. Environmentally sensitive areas will most likely be encountered on Contractor designated PSLs for this project.

Do not park equipment or make stockpiles where driver sight distance to businesses and side street intersections is obstructed, especially after work hours. If it is necessary to park where drivers' views are blocked, make every effort to flag traffic accordingly. Give the travelling public first priority.

Maintain positive drainage for permanent, as well as, temporary drainage for the duration of the project. This work is the sole responsibility of the Contractor. Construct temporary and permanent drainage systems prior to the placement of temporary pavement, when possible, but absolutely prior to the placement of permanent pavement. Be responsible for any items associated with the temporary/interim drainage and all related maintenance. No direct payment will be made for this work. The Engineer will have the final authority in determining the adequacy of any temporary/permanent drainage features installed.

Migratory Birds

The Contractor's attention is directed to the fact that there is the possibility that migratory birds may be nesting within the project limits. Migratory bird nesting activity can be concentrated on

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roadway structures such as bridges and culverts. Remove all old migratory bird nests from any structures between September 1 and January 31, and while the nests are not occupied or being used by migratory birds. In addition, be prepared to prevent migratory birds from re-nesting between February 1 and August 31.

All methods used for the removal of old bird nests and the prevention of re-nesting must be approved by the Austin District Biologist, well in advance of the planned use.

In the event that any active nest of a migratory bird species is encountered on-site during project construction, all construction activity within 150 feet of the nest will cease immediately. Contact the district biologist to determine how to proceed.

No blasting on this project.

ITEM 8 – PROSECUTION AND PROGRESS

Article 8.3C

Work is allowed to be performed during the nighttime, with prior approval.

ITEM 9 – MEASUREMENT AND PAYMENT

Provide full-time, off-duty, uniformed, certified peace officers in officially marked vehicles, as part of traffic control operations, as directed.

Show proof of certification by the Texas Commission on Law Enforcement Standards.

No payment will be made for peace officers unless the Contractor completes the proper Department form. Request the form from the Department.

No payment for officers used for moving equipment without prior written approval.

ITEM 100 – PREPARING RIGHT OF WAY

Do not burn brush, unless otherwise approved.

Use hand methods or other means to remove obstructions, if doing work by mechanical methods is impractical. Consider subsidiary to the pertinent Items.

ITEM 100, 132 & 160 - PREP ROW, EMBANKMENT, & TOPSOIL

Use hand methods or other means to remove objectionable material, if doing work by mechanical methods is impractical. Consider subsidiary to the pertinent Items.

ITEM 110 & 132 – EXCAVATION & EMBANKMENT

Unsuitable material encountered in a cut or fill section will be considered waste. The Engineer will define unsuitable material. Material, which the Contractor might deem to be unsatisfactory

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or unsuitable, due to moisture content, will not be considered unsuitable material, unless otherwise approved.

ITEM 132 & 400 - EMBANKMENT & EXCAVATION AND BACKFILL FOR STRUCTURES

Use approved compaction equipment for all backfilling and embankment operations. Detachable sheepsfoot-type wheels mounted on backhoes, trackhoes and other similar equipment will not be allowed for compaction operations, including pipe installation.

ITEM 132 - EMBANKMENT

For Ty "C" Embankment, a maximum PI of 20 and a minimum PI of 6 will be allowed.

For embankments that are thicker than 5 feet in depth, project excavation can be used in the lifts below the top 5 feet of fill.

Engineer must approve the embankment material before use on the project.

Work to correct unstable material (e.g. dry, wet, loose, etc.) to a depth of 6" below existing subgrade elevation, prior to beginning any embankment placement. Consider subsidiary to the various bid Items. Any work to correct unstable material below the 6" depth, below existing subgrade elevation, will be paid as extra work. However, there will be no payment to correct failures, in the subgrade areas, that were constructed under this contract.

Track ALL embankment slopes left idle for more than 14 days, within or at the end of the 14-day idle period, to prevent erosion. Tracking consists of operating a tracked vehicle or equipment up and down the slope, leaving track marks perpendicular to the direction of the slope. Tracking slopes to prevent erosion is considered subsidiary to the pertinent items.

Correct subgrade (e.g. unstable areas, soft spots, etc.) prior to the dumping of Flexbase or HMA CP. Consider subsidiary to the pertinent Items.

Scarify and re-compact existing asphaltic/base sections, which are not called out to be removed in fill sections, where the bottom of the proposed pavement structure is higher than and over the top of the existing asphalt surface in order to reduce the possibility of a slip plane.

ITEM 160 - TOPSOIL

Obtain approval of all topsoil sources before digging begins. Ensure off-site topsoil has a minimum PI of 25, or as directed. Ensure that the topsoil placed is similar to the topsoil that is within the project. To the extent possible, obtain as much of the topsoil from within the project site, or as directed. TxDOT reserves the right to take samples, as needed, to assure that the material meets the PI and other requirements as indicated in the Specifications (Fertility, Organics, Erodability, etc.).

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No Sandy Loam allowed, unless the project dictates otherwise.

Obtain approval of the actual depth of the topsoil sources for both on-site and off-site sources.

Construct topsoil stockpiles no more than five (5) feet in height.

It is permissible to use topsoil dikes for erosion control berms within the right of way.

Track ALL topsoiled slopes left idle for more than 14 days, within or at the end of the 14-day idle period, to prevent erosion. Tracking consists of operating a tracked vehicle or equipment up and down the slope, leaving track marks perpendicular to the direction of the slope. Consider the tracking slopes to prevent erosion subsidiary to the pertinent items.

Upon final grading, immediately track all topsoiled slopes to prevent erosion, prior to seeding operations, as directed. Consider subsidiary to the pertinent Items.

Provide measurements for payment of topsoil quantities before seeding. Consider subsidiary to the pertinent Items.

Place Topsoil in accordance with the SW3P, in phases, as partial completion of the roadway is obtained.

ITEM 164 – SEEDING FOR EROSION CONTROL

Obtain vegetation establishment of all seeded areas, including adequate coverage, prior to “Final Acceptance.” If all other work is complete, time charges may be suspended, until adequate coverage is established.

Do not use ryegrass for temporary cover.

Reseed all areas with “little or no” grass growth after 1 month from the last seeding date, as directed by the Engineer. Consider subsidiary to the various bid items.

ITEM 166 – FERTILIZER

Use 13-13-13 fertilizer analysis, unless otherwise directed. Take soil samples, as directed, to determine the actual soil needs for fertilizer. Consider this work subsidiary to pertinent Items.

ITEM 168 – VEGETATIVE WATERING

Water all areas of project to be seeded or sodded.

Maintain the seedbed in a condition favorable for the growth of grass. Watering can be postponed immediately after a rainfall on the site of ½ inch or greater, but will be resumed before the soil dries out. Continue watering until final acceptance.

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Vegetative watering rates and quantities are based on ¼ inch of watering per week over a 3-month watering cycle. The actual rates used and paid for will be as directed and will be based on prevailing weather conditions to maintain the seedbed.

Obtain water at a source that is metered or furnish the manufacturer’s specifications showing the tank capacity for each truck used. Notify the Engineer, each day that watering takes place, before watering, so that meter readings or truck counts can be verified.

ITEM 169 – SOIL RETENTION BLANKETS

Provide machined mat of curled wood excelsior of 80%, six-inch or longer fibers. The top of each blanket is covered with a photodegradable extruded plastic mesh. Typical weight = 0.975 lbs/sq yd; typical roll width = 48 or 96 inches; typical roll length = 90 feet. This soil retention blanket should meet the previous stated requirements, equal, or better as approved.

Use materials from prequalified material producers as shown on the Texas Department of Transportation (TxDOT) *Material Producers List*. See TxDOT website http://www.txdot.gov/txdot_library/publications/producer_list.htm for list of pre-qualified manufacturers. Direct all questions to the Maintenance Division, Vegetation Management Section, 125 E. 11th Street, Austin, TX 78701-2483.

ITEM 204 - SPRINKLING

Apply water for dust control as directed. When dust control is not being maintained, cease operations until dust control is maintained. Consider subsidiary to the pertinent Items.

ITEM 247 - FLEXIBLE BASE

MATERIAL REQUIREMENTS

		(Percent Retained-Sieve) - Tex-110-E					LL ¹	PI ^{1,4}	Wet Ball Mill ²		Min. Compressive Strengths ³	
Item	Description	1 ¾"	¾"	¾"	#4	#40	Max	Max	Value	% Increase	@ 3 psi.	@15 psi.
247	Flex Base GR 4	0	10-35	35-65	45-75	70-85	35	10	40	20	90	175

1. Performed in accordance to Tex-104-E and Tex-106-E. Determine Plasticity Index (PI) in accordance with Tex-107-E when liquid limit (LL) is not attainable as defined in Tex-104-E.
2. Performed in accordance to Tex-116-E
3. Performed in accordance to Tex-117-E
4. Minimum PI required is zero (0).

The following table will govern the acceptance of compaction on base courses, when compacted in multiple courses. Compaction requirements are in percent of maximum dry density as

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determined by (Tex-113-E). When compacting in a single course, compact to at least 100% of maximum dry density as determined by Tex-113-E.

ITEM	MATERIAL	ALL ROADWAYS	
		LIFT	MIN DENSITY
247	FL BS (CMP IN PLC)	1	98%
		2 (FINAL LIFT)	100%

Use Type “A” material.

Correct subgrade (e.g. unstable areas, soft spots, etc.) prior to the dumping of Flex Base. Consider subsidiary to the pertinent Items.

Use Flex Base (CMP IN PL) (TY A GR 4) for driveways, minor streets, and other locations as directed.

Roll shoulder base with a light pneumatic roller to prevent erosion.

Complete ditches and slopes in conformity with the required lines, grades, and cross-sections shown on the plans or as directed & cut ditches and place drainage structures prior to placing base.

ITEM 300 – ASPHALTS, OILS, AND EMULSIONS

Asphalt season starts April 1 and ends October 31.

ITEM 302 – AGGREGATES FOR SURFACE TREATMENTS

Previously tested aggregates delivered to the project, which are found to contain excessive quantities of dust (more than 0.5 percent passing the no. 40 sieve) during pre-coating, stockpiling or hauling operations, will be rejected, unless otherwise directed. Use test method Tex-200-F, Part I, for testing.

ITEM 310 – PRIME COAT

Apply blotter material to all driveways and intersections.

Use bituminous material of the type MC-30 OR AE-P.

ITEM 310 & 340

Do not perform work on these Items when the weather, as indicated by National Oceanic and Atmospheric Administration (NOAA), states a chance of rain of 40% or greater, unless otherwise directed.

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ITEM 316 – SURFACE TREATMENTS

Do not apply asphalt within 1½ hours of sunset, or later, unless otherwise directed.

Ensure the accuracy of the Distance Measuring Instrument (DMI) with the Engineer, prior to marking the Asphalt and Rock Land shots.

- Ensure that all One Course Surface Treatment Operations are covered by HMA CP before the workers leave the project, for that particular day's work, as directed.

Ensure the minimum aggregate surface classification is class B.

Surface all transitions, tapers, climbing lanes and intersections to the limits as directed.

Keep all traffic, including construction traffic, off freshly placed surface treatment, as directed.

Distribution to each control section will be proportioned to the volumetric quantity as shown on the "daily road report."

ITEM 340 - DENSE-GRADED HOT-MIX ASPHALT (METHOD)

Provide mixture type B using PG binder 64-22.

Provide mixture type C using PG binder 70-22.

For type C, use aggregate that meets the SAC requirement of class B.

Target laboratory molded density is 96.5% for all mixtures without RAP and when using a Texas Gyrotory Compactor (TGC) for designing the mixture.

When using RAP in a mixture, the target laboratory molded density is 96.5% for PG 64-22 mixtures and 97% for mixtures using PG 70-22 or higher for TGC mixture designs.

When using Superpave Gyrotory Compactor (SGC) to design mixtures, submit the SGC mix design to the Engineer for approval.

Complete all roadways before final surface course placement, unless directed otherwise.

Ensure placement sequence to avoid excess distance of longitudinal joint lapback not to exceed one day's production rates.

Use a device to create a maximum 3H:1V notched wedge joint on all hot mix joints of 2 in. or greater. Consider subsidiary to the pertinent Items.

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All mixtures must meet the Hamburg requirement as stated in the table below.

HIGH-TEMPERATURE BINDER GRADE	TEST METHOD	HAMBURG WHEEL TEST REQUIREMENTS ¹
		MINIMUM # OF PASSES @ 0.5" RUT DEPTH, TESTED @122°F
PG 64 OR LOWER	TEX-242-F	7,000
PG 70	TEX-242-F	15,000
PG 76 OR HIGHER	TEX-242-F	20,000

1. The Engineer may accept Hamburg Wheel Test results for production and placement if no more than 1 of the 5 most recent tests is below the specified number of passes and the failing test is no more than 2,000 passes below the specified number of passes.

When Warm-Mix Asphalt (WMA) is used, submit a mix design and trial batch test results to the District Laboratory for approval. The type and rates of additive or type of process must be documented on the submitted mix design. Document the production temperature of the trial batch mixture.

When using RAP, include the management methods of RAP processing, stockpiling, and testing in the QCP submitted for the project. Submit quality control testing of asphalt content and gradation with JMF 1.

For surface mixtures, only fractionated RAP is allowed.

Furnish RAP meeting the following material requirements:

<u>Property</u>	<u>Test Method</u>	<u>Requirement</u>
Deleterious Materials, % max.	Tex-217-F, Part II	1.5
Decantation, %, max.	Tex-406-A	5

Submit any proposed adjustments or changes to a job mix formula to the Engineer before production of the new job mix formula.

Tack every intermediate layer, unless otherwise directed. Do not dilute tack coat. Apply it through a distributor spray bar in accordance with Article 316.3(A) Distributor.

When surface irregularities, as defined in Article 341.4.I.3.c(5), "Irregularities", are detected or measured, the Contractor must take immediate corrective action defined as the removal and replacement of a full lane width of the defective area using a paver to place new mix, unless otherwise directed. If there are multiple defective areas within a subplot, making up to 30% of the subplot by area, the Engineer will require the entire subplot be removed, unless directed otherwise.

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Do not dilute tack coat. Apply it through a distributor spray bar in accordance with Article 316.3(A) Distributor.

[Hot Mix Asphaltic Conc (HMAC) Core Holes]

Refill and compact all HMAC core holes to the same elevation as the adjacent roadway. Use Instant Roadway Repair[®] manufactured by International Roadway Research, 14702 Marine Road, Humble, TX 77396, phone # 1-800-837-4806, or equivalent, as directed. Consider this work subsidiary to the pertinent Items.

In addition to cores:

The Contractor must sample asphalt binder, in accordance to the applicable item. Label the sample can with the corresponding CSJ, lot, and subplot numbers.

Samples must be stored in a common area where they are readily available to the TxDOT representative at the plant. The Contractor will be responsible for supplying storage for all samples. Retain all asphalt samples until directed otherwise.

When directed, the Contractor is responsible for disposal of all asphalt binder samples, in accordance to Local, State, and Federal regulations.

Transition from the new ACP to existing surface tie-in by utilizing a required milled transition to a vertical butt joint. Make the transition a minimum of 50 feet H: 1 inch V slope ratio of newly placed ACP. Make the temporary joint, at the tie-in, a minimum of a “3-paper-taper” longitudinally and covering the entire width. Sawcut existing pavement as directed. Prior to milling, core the existing pavement to determine its thickness. Do not proceed with milling until directed. Consider this work subsidiary to the pertinent Items.

ITEM 351 - FLEXIBLE PAVEMENT STRUCTURE REPAIR

Remove all loose material from the roadway before opening to traffic.

Locations to be repaired will be as directed by the Engineer. All areas to be repaired will have the finished asphalt in place before the area is opened to traffic. The 6” depth of repair for this item will be measured from the bottom of the 2” planing shown on the typical sections.

The State will retain ownership of any materials removed during flexible pavement repairs. Stockpile salvaged materials at the TxDOT South Travis Maintenance Office located at 12315 US 290 West.

ITEM 354 - PLANING AND TEXTURING PAVEMENT

Remove the loose material from the roadway before opening to traffic.

Plane a full lane width before opening to traffic at the end of a work period.

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Accomplish a 2-inch depth of planing and texturing in two passes. A single cut will be permitted if at most a 1¼-inch vertical offset is created against adjacent lanes when opened to traffic at the end of a work period.

Accomplish the 2 inch Planed Butt Joint only when there is at least 4 inches of existing thickness of ACP. Consider the determination of existing thickness of ACP as subsidiary to the various Items.

Taper transverse faces at ends of passes as directed.

Stockpile salvaged materials at the TxDOT South Travis Maintenance Office located at 12315 US 290 West.

Make Transverse Tapers on each end of each pass using a minimum slope rate of 50 feet H to 1 inch V.

ITEM 400 - EXCAVATION AND BACKFILL FOR STRUCTURES

Cut pavements with the use of a saw as directed. Consider subsidiary to pertinent Items.

Obtain approval of all compaction equipment prior to all backfilling and embankment operations.

Do not use detachable sheepsfoot-type wheels mounted on backhoes, trackhoes, and other similar equipment for compaction operations.

ITEM 432 & 467

Remove all loose Formwork and other Materials from the Floodplain, daily, which could float off in a Stormwater Event, as directed.

ITEM 421 - HYDRAULIC CEMENT CONCRETE

Sulfate resistant concrete is not required from any class of concrete.

Over-design requirements for compressive strength are waived for non-structural concrete, as defined in Table 5, Item 421.4. Construction. A.

Minimum air-entrainment requirements are waived for all classes of concrete, except for Class S, DC, or CO concrete. For all classes of concrete, except for Class S, P, DC or CO concrete or non-structural concrete, as defined in Table 5, the entrained air content must not exceed 8% air.

For all non-pavement applications using Class S, DC or CO concrete, target 5.5% entrained air. If the air content exceeds the target air content by more than 3 percentage points, the load of concrete will be rejected.

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ITEM 427 - SURFACE FINISHES FOR CONCRETE

Consider Surface Finishes for concrete as subsidiary to the pertinent Items.

ITEM 432 - RIPRAP

Make 5-inches thick unless otherwise noted or directed.

Where any proposed riprap joins existing riprap, saw cut the existing riprap and dowel/epoxy the joint as directed. Consider subsidiary to the pertinent Items.

Additional riprap may be required, as determined by the Engineer, near the end of project completion, due to unanticipated erosion locations. Any additional, approved riprap will be paid under this item.

Consider saw cutting of riprap as subsidiary.

ITEM 464 & 467

Place flowable fill in areas, underneath the Roadway, where there will be less than 3 feet of depth from top of pipe or structure to the subgrade elevation. Payment made under Item 401.

ITEM 467 - SAFETY END TREATMENT

Cut pipe ends, in the field, to match roadway side slopes, or as directed. Apply asphalt base aluminum paint to the cut ends. All Type II SET's shall have mitered pipe ends and cast-in-place riprap aprons.

ITEM 502 - BARRICADES, SIGNS, AND TRAFFIC HANDLING

Nighttime lane closures will be allowed from 8:00 PM to 5:00 AM, unless otherwise shown on the plans.

No Daytime Lane Closures will be allowed, unless otherwise shown on the plans or as directed by the Area Engineer.

The Area Engineer (AE) and The District's Director of Construction (DDC) are the authority to approve additional lane closures, prior to any work.

Maintain a written record of documentation of "The Additional Approved Lane Closures."

One lane will remain open, in each direction, at all times, unless otherwise shown on the plans or as approved by the AE and DDC.

Notify the TxDOT Inspector so that they can notify John Hurt @ Combined Transportation, Emergency, and Communications Center (CTECC) Public Affairs Office at (512) 974-0898, prior to implementing any "Approved Lane Closure" for a State Highway or Roadway. Provide notice no later than 2:00 PM (Central Time) and at least 24 hours prior to the closure.

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Provide Advance Notice of the Actual Lane Closure(s), on the Day (Night) of the Closure(s), to the TxDOT Inspector so that they can notify CTECC @ (512) 974-0883. Also, immediately upon removal of the Closure(s) provide notice to the TxDOT Inspector for them to notify CTECC @ (512) 974-0883.

Submit and secure concurrence, prior to the publication of any notices or placement of any traffic control devices for implementation of the traffic control plan, hereinafter called a Lane Closure Notice (LCN).

Prepare Public Information Notices, for release by the Department, in advance of the implementation of any LCN. Refer to these notices as Traffic Advisories (TA).

Present to TxDOT, an LCN for traffic control, which is proposed for implementation, a minimum of four (4) full working days preceding any proposed implementation date. Indicate the estimated date, time, duration, and location for the proposed work. Submit a written Traffic Control Plan (TCP) depicting exact traffic control device locations and referencing the appropriate plan sheet, TxDOT or TMUTCD standards, an operational description of the work to be performed, and the reason that traffic must be affected.

Present to TxDOT, LCN's proposed to detour traffic, a minimum of seven (7) full calendar days preceding any proposed implementation date.

Present to TxDOT, LCN's proposed for night work, a minimum of seven (7) full calendar days preceding any proposed implementation date.

Receive concurrence prior to LCN implementation.

Meet with the Engineer prior to roadway and lane closures to ensure that sufficient equipment, materials, devices, and workers will be used. Discuss contingency plans at that time. Consider inclement weather prior to implementing the lane closures.

Submit a Public Information Notice (TA), in an acceptable format, by noon, at least two (2) full working days preceding any work proposed in an LCN.

Submit a cancellation of TA, no later than noon on the day preceding the proposed work described in an LCN.

Coordinate Main Lane closures with adjacent projects.

Obtain prior approval for any Lane Closures of the mainlanes, which occur during peak hours. Maintain a minimum of one lane open, in each direction, at all times. This includes 'full' closures of the Roadway, unless otherwise directed.

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Take immediate action to modify Closures / Traffic Control, if at any time backup (roadway queuing) becomes unreasonable (greater than 20 minutes). Have in place, a contingency plan of how this will occur.

Cancel Off-Duty Peace Officers and their Motor Vehicle Units when the Scheduled lane closures are canceled. Failure to cancel the Off Duty Officers and their respective Motor Vehicle Units will not be cause for payment, by TxDOT, for "Show Up" time.

Do not set up any lane closures when the weather, as indicated by National Oceanic and Atmospheric Administration (NOAA), shows a chance of rain of 40% or greater, unless otherwise directed.

Do not set up any Lane Closure / TCP when the pavement is wet prior to the "setup," unless otherwise directed. Revise Traffic Control, when inclement weather is imminent, as directed.

Incorporate and maintain a 3H: 1V safety wedge into the proposed construction for any roadway edge of 2 inches or greater adjacent to a roadway under traffic.

Within the limits of the project, provide standard barricades, warning signs, delineators, lights, 28-inch cones, and flaggers in enough numbers and combinations, as directed.

Use a minimum of 2 flaggers, 2 advance warning flashing arrow panels (TY C), 2 of each signs CW20-5R or CW20-5L with appropriate distance plaques and CW9-2R or CW9-2L and 28-in. cones at each location in which milling or paving operations are in progress. Maintain at least 1 lane of traffic in each direction during paving or milling operations. Maintain at least the minimum numbers of lanes as directed.

No Lane Closures on the Roadway that significantly reduce the level-of-service.

For Mainlanes use night-work and same-night remove-and-replace operations.

No weekend closures will be allowed on the weekends, which include the following holidays: January 1, the last Monday in May, July 4, the first Monday in September, the fourth Thursday in November, December 25, Easter weekend, and the first working day before or after any of the aforementioned holidays. Unless otherwise approved, no weekend closures will be allowed on the weekends of special events that could be impacted by the construction. Ensure all equipment, vehicles, workers, etc., associated with these closures are off the roadways and all lanes re-opened at least by noon of the Friday before these holidays and special events.

Maintain a minimum of one through lane(s) in each direction, during the daylight hours, as directed.

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Place TY III Barricade 4 feet (min.), 8 feet (max.) or a minimum of 2 Barrels at each stockpile of material that is placed on the right of way and is located within 30 feet of the traveled way. See BC (10)-07 sheet for more details.

Place appropriate number of “electronic” Portable Changeable Message Signs at locations requiring lane closures for one-week prior to the closures, or as directed. Obtain approval for the actual message that will appear on the boards. If more than two phases of a message are required per board, provide additional PCMSs to meet the two-phases-per-board requirement.

Use advance warning flashing arrow panels for the closing of traffic lanes. Furnish one stand-by unit, in good working condition at the jobsite, ready for immediate use.

Maintain access to all streets and driveways at all times, unless otherwise approved. Consider subsidiary to the pertinent Items.

Furnish advisory speed signs in enough numbers as directed.

Maintain enough workers to revise traffic control as directed.

Provide a “Downstream” Buffer Space ($\approx 100'$ per lane with devices spaced at $\approx 20'$) for each lane closure setup, as directed.

Maintain construction-warning signs, which are needed for longer periods than what is shown on the traffic control plan or as directed. Consider subsidiary to the pertinent Items.

Cover or remove any existing sign(s), which conflict with temporary traffic control operations. Install all permanent signs, delineation, and object markers necessary for the operation of any roadway before opening that section of roadway to traffic, regardless of the phase during which the roadway construction occurs. Erect the signs on temporary mounts until the permanent mounts are installed. Consider any costs associated with the temporary mounts subsidiary. Repair or replace any signs, which are damaged by the Contractor’s operations during construction or which are deemed not sufficient. The Engineer will be the sole judge of the adequacy of the sign(s). Consider this work subsidiary to the pertinent Items.

Secure a 28-inch cone on top of any foundations that have protruding studs during construction. The cones will meet the specifications listed on BC (10)–07. In addition, they will be reflectorized, as described. All labor and materials will be considered subsidiary to the pertinent Items.

Provide two electronic portable changeable message sign(s) (EPCMS) as part of the traffic control operations. Consider one as a backup. All EPCMS will be exclusive to this project, unless otherwise approved.

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Maintain Sandbags that are used for ballast, as directed. Consider subsidiary to the pertinent Items.

ITEM 504 - FIELD OFFICE AND LABORATORY

Asphaltic Material Testing Facility

Furnish a Type D structure for the asphalt-mix control laboratory for the Engineer's exclusive use. Ensure the floor has enough strength to support the testing equipment and has an impervious covering.

Ensure the Type D structure has adequate air conditioning and is furnished with a minimum of one desk, three chairs, one file cabinet, a telephone, and one built-in equipment storage cabinet for the storage of nuclear equipment. Make the cabinet a minimum of 3-feet wide by 2-feet deep by 3-feet high and make provisions for locking securely. Provide the structure with a 240-volt electrical service entrance. Provide a minimum of four 120-volt circuits with 20-amp breakers and at most two grounded convenience outlets per circuit and provisions for a minimum of two 220-volt ovens with vents to the outside. Provide a minimum of two convenience outlets per wall and a utility sink with an adequate clean potable water supply for testing. Space heaters for heating the structure are unacceptable. Provide support blocks and tie down portable structures for stability.

Provide an ignition oven for the use of Department to determine asphalt content in accordance to Tex-236-F. Provide other laboratory equipment as directed.

Provide to the Department and their representative, as a part of the Type D structure, a computer meeting the minimum specification requirements in DMS 10101 "Computer Equipment." Provide a color printer no older than 2 years old. The operation system must be Microsoft XP-SP2, unless directed otherwise. Provide DSL or better internet service. Computer must have at least two front USB ports. Consider subsidiary to pertinent Items.

Provide a permanent, fully equipped, indoor restroom, with toilet and running water as a part of the Type D structure, unless approved otherwise. Provide a monthly drinking water cooler with hot & cold taps and a monthly drinking water service, unless approved otherwise. Consider subsidiary to the pertinent Items.

Equivalent structures may be substituted for those specified under this Item, as agreed. The agreement must be in writing.

Maintain and/or repair any structure or equipment contained herein. Consider subsidiary to the pertinent Items.

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ITEM 506 - TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS

Obtain the Engineer's approval for proposed methods used for erosion control before starting each phase of construction.

ITEM 528 - COLORED TEXTURED CONCRETE AND LANDSCAPE PAVERS

Furnish and install the interlocking modular concrete paving units as shown on the plans.

Ensure placement of concrete pavers occurs after installation of permanent signing and signals.

Ensure delivery of the paving units to the jobsite on pallets. Ensure the paving units are bound so that no damage occurs to the product during any handling, hauling, and unloading.

Use paving units such as "Holland-Stone" as manufactured by Pavestone Co., 1900 Clovis Barker Rd, San Marcos, TX 78666, or approved equal. Ensure the paving unit thickness will be 2 $\frac{3}{8}$ inches. Submit samples of colored pavers to the Engineer. Use the color specified by the Engineer.

Ensure all edges of the installed paving units not restrained by the concrete curb and gutter are restrained by a Type F curb as shown on the plans.

Prepare base material as detailed on the plans. Shape to grade with an allowable tolerance of $\frac{1}{4}$ inch.

Grade the base 3 $\frac{3}{8}$ inches below final grade for 2 $\frac{3}{8}$ -inch pavers. Obtain approval of Engineer before placement of the sand laying course.

Do not disturb sand laying course in any way once screeded and leveled to the desired elevation.

Lay the paving units so a desired pattern (90° herringbone bond) is maintained. Maintain the joints between the paving units not to exceed $\frac{1}{8}$ inch.

Leave surplus material on the surface during construction to insure complete filling of joints. Sweep and clean the paver surface of all excess soil, foreign material, and stains upon completion of all installation work.

ITEM 644 - SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

Fabricate all small signs not detailed on the plans in conformance with the latest edition of the *Standard Highway Sign Designs for Texas*.

(http://www.txdot.gov/txdot_library/publications/highway_signs.htm)

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ITEM 662, 666, & 672 PAVEMENT MARKERS & MARKERS

Notify the Engineer at least 24 hours in advance of removing existing striping and placing pavement markings and markers.

ITEM 662 - WORK ZONE PAVEMENT MARKINGS

Place temporary pavement markings each night, as directed. Temporary flexible-reflective tabs will not be allowed as temporary pavement marking on the various roadways, unless otherwise approved

Remove work zone pavement markings within 48 hours after permanent striping has been completed.

Foil backed pavement markings will not be allowed.

ITEM 666 - REFLECTORIZED PAVEMENT MARKINGS

Apply Type I ReflectORIZED Pavement Markings no sooner than 7 days after applying the final course of HMA CP, unless otherwise directed.

Ensure that Type II pavement markings have been applied to final course HMA CP before the workers leave the project, for that particular day's work, as directed.

Reference existing channel islands, gores, and lane striping before commencing work. Provide referencing that will include a sketch of the layout to the Engineer. Obtain approval for placement of guidemarks from the Engineer before to installing any permanent pavement markings. Consider subsidiary to the pertinent Items.

ITEM 672 - RAISED PAVEMENT MARKERS

Place the bituminous adhesive at a temperature range of 380°F to 390°F. Place the pavement marker on the bituminous adhesive approximately 20 seconds after the adhesive is placed on the pavement. Ensure the pavement marker rests solely on the adhesive and not the pavement surface. Ensure that a minimum of 1/8 in. layer of bituminous adhesive remains between the pavement marker and the pavement surface.

ITEM 677 - ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

Remove and dispose of, off the right of way, any existing raised pavement markings before beginning surfacing operations. Remove the existing traffic buttons and pavement markers, daily, as work progresses and as directed. Consider subsidiary to the pertinent Items.

Grinding is not an acceptable method of stripe removal.

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Elimination of existing pavement markings will be performed by using the Surface Treatment Method. See Basis of Estimate for rate information.

ITEM 738 – CLEANING AND SWEEPING HIGHWAYS

Complete cleaning and sweeping cycles at the intervals, as directed. Complete one cycle at the end of construction and prior to final acceptance by the Department.