

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 3/02/2016

Control	0237-04-013
Project	STP 2016(855)
Highway	SH 44
County	DUVAL

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 2016(855)

CONTROL: 0237-04-013

COUNTY: DUVAL

LETTING: 03/03/2016

REFERENCE NO: 0229

PROPOSAL ADDENDUMS

_ PROPOSAL COVER

X BID INSERTS (SH. NO.: 1, 3, and 4 of 5.)

X GENERAL NOTES (SH. NO.: E through I.)

X SPEC LIST (SH. NO.: 1 and 2 of 2.)

X SPECIAL PROVISIONS:

ADDED: 003---008

DELETED: 003---008

X SPECIAL SPECIFICATIONS:

ADDED: 6040

DELETED:

X OTHER: Plan sheets.

DESCRIPTION OF ABOVE CHANGES

(INCLUDING PLANS SHEET CHANGES)

Proposal:

Bid Inserts: Sh. 1, 3, 4, of 5 - added Alternate Group 1A consisting of Items 105-6008, 316-6015, 316-6238, 341-6010, and 351-6013, to Base Bid Group 1 Items 310-6012, 316-6251, 347-6001, 347-6002, 3017-6001, 3017-6003, and 3017-6004.

General Notes: Sh. E through I - deleted Item 134, added Items 105, 164, 300, 316, 341, 351, 512, and 545.

Specification List: added Items 105, 341, 351, 504; added reference item 6040 to Item 666; added Special Specification 6040. Revised 003---008.

Plans:

Sh. 2 - added sheets 5E, 5F, 10A and 11A.

Sh. 4 - added Alternate typical section, details, and materials.

Sh. 5B through 5D - deleted Item 134, added Items 105, 164, 300, 316, 341, 351, 512, and 545.

Sh. 5E through 5F - added Items 512 and 545, and text shifted.

Sh. 6-6A - identified Items 310-6012, 316-6251, 347-6001, 347-6002, 3017-6001, 3017-6003, and 3017-6004 as Base Bid Group 1.

Sh. 6A - added Alternate Group 1A consisting of Items 105-6008, 316-6015, 316-6238, 341-6010, and 351-6013.

Sh. 7 - in Summary of Roadway, added Alternate items. Moved Summary of

DESCRIPTION OF ABOVE CHANGES

(CONTINUED)

(INCLUDING PLANS SHEET CHANGES)

Bridge 025 to sheet 8.

Sh. 8 - Summary of Bridge 025 moved to this sheet from sheet 7.

Sh. 10A - new TCP sequence of construction for alternate pavement.

Sh. 11A - new TCP typical sections for alternate pavement.

Sh. 49 - added alternate pavement design table.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	150	6002		BLADING DOLLARS and CENTS	HR	29.000	1
	164	6036		DRILL SEEDING (PERM) (RURAL) (CLAY) DOLLARS and CENTS	AC	6.600	2
	164	6042		DRILL SEEDING (TEMP) (WARM) DOLLARS and CENTS	AC	6.600	3
1	310	6012		PRIME COAT (RC-250) DOLLARS and CENTS	GAL	40,666.000	4
1	316	6251		AGGR(TY-PE GR-5 SAC-B) DOLLARS and CENTS	CY	2,260.000	5
1	347	6001		TOM (ASPHALT) PG 76-22 DOLLARS and CENTS	TON	796.000	6
1	347	6002		TOM-C (AGGREGATE) SAC-A DOLLARS and CENTS	TON	10,897.000	7
	401	6001		FLOWABLE BACKFILL DOLLARS and CENTS	CY	231.000	8
	464	6003		RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	48.000	9
	464	6005		RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	88.000	10
	464	6007		RC PIPE (CL III)(30 IN) DOLLARS and CENTS	LF	136.000	11
	467	6172		SET (TY I)(S= 5 FT)(HW= 3 FT)(4:1) (C) DOLLARS and CENTS	EA	8.000	12

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	6177		SET (TY I)(S= 5 FT)(HW= 4 FT)(4:1) (C) DOLLARS and CENTS	EA	6.000	13
	467	6182		SET (TY I)(S= 5 FT)(HW= 5 FT)(4:1) (C) DOLLARS and CENTS	EA	4.000	14
	467	6205		SET (TY I)(S= 6 FT)(HW= 3 FT)(4:1) (C) DOLLARS and CENTS	EA	10.000	15
	467	6270		SET (TY I)(S= 8 FT)(HW= 4 FT)(4:1) (C) DOLLARS and CENTS	EA	2.000	16
	467	6358		SET (TY II) (18 IN) (RCP) (4: 1) (C) DOLLARS and CENTS	EA	2.000	17
	467	6390		SET (TY II) (24 IN) (RCP) (4: 1) (C) DOLLARS and CENTS	EA	8.000	18
	467	6419		SET (TY II) (30 IN) (RCP) (4: 1) (C) DOLLARS and CENTS	EA	20.000	19
	467	6450		SET (TY II) (36 IN) (RCP) (4: 1) (C) DOLLARS and CENTS	EA	2.000	20
	480	6001		CLEAN EXIST CULVERTS DOLLARS and CENTS	EA	31.000	21
	496	6005		REMOV STR (WINGWALL) DOLLARS and CENTS	EA	18.000	22
	496	6006		REMOV STR (HEADWALL) DOLLARS and CENTS	EA	26.000	23
	496	6007		REMOV STR (PIPE) DOLLARS and CENTS	LF	272.000	24

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	500	6001		MOBILIZATION DOLLARS and CENTS	LS	1.000	25
	502	6001		BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS and CENTS	MO	9.000	26
	506	6020	003	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	156.000	27
	506	6024	003	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	156.000	28
	506	6038	003	TEMP SEDMT CONT FENCE (INSTALL) DOLLARS and CENTS	LF	3,000.000	29
	506	6039	003	TEMP SEDMT CONT FENCE (REMOVE) DOLLARS and CENTS	LF	3,000.000	30
	510	6001		ONE-WAY TRAF CONT (FLAGGER CONT) DOLLARS and CENTS	HR	650.000	31
	512	6072		PTB (FRN&INSTL)(SGL SLP)(TY 1) OR (STL) DOLLARS and CENTS	LF	90.000	32
	512	6074		PTB (MOVE)(SGL SLP)(TY 1) OR (STL) DOLLARS and CENTS	LF	270.000	33
	512	6076		PTB (REMOVE)(SGL SLP)(TY 1) OR (STL) DOLLARS and CENTS	LF	90.000	34
	540	6001		MTL W-BEAM GD FEN (TIM POST) DOLLARS and CENTS	LF	300.000	35
	540	6002		MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS	LF	400.000	36

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	540	6006		MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS	EA	8.000	37
	540	6017		MTL BM GD FEN (LONG SPAN SYSTEM) DOLLARS and CENTS	LF	100.000	38
	540	6020		MTL W - BEAM GD FEN (LOW FILL CUL- VERT) DOLLARS and CENTS	LF	106.000	39
	542	6001		REMOVE METAL BEAM GUARD FENCE DOLLARS and CENTS	LF	1,300.000	40
	542	6002		REMOVE TERMINAL ANCHOR SECTION DOLLARS and CENTS	EA	18.000	41
	544	6001		GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS	EA	12.000	42
	544	6003		GUARDRAIL END TREATMENT (REMOVE) DOLLARS and CENTS	EA	2.000	43
	545	6003		CRASH CUSH ATTEN (MOVE & RESET) DOLLARS and CENTS	EA	10.000	44
	545	6004		CRASH CUSH ATTEN (STKPL) DOLLARS and CENTS	EA	2.000	45
	545	6019		CRASH CUSH ATTEN (INSTL)(S)(N)(TL3) DOLLARS and CENTS	EA	2.000	46
	658	6015		INSTL DEL ASSM (D-SW)SZ (BRF)GF1 DOLLARS and CENTS	EA	40.000	47
	658	6049		INSTL OM ASSM (OM-2Z)(FLX)GND(BI) DOLLARS and CENTS	EA	52.000	48

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	658	6060		REMOVE DELIN & OBJECT MARKER ASSMS DOLLARS and CENTS	EA	92.000	49
	658	6061		INSTL DEL ASSM (D-SW)SZ 1(BRF)GF2 DOLLARS and CENTS	EA	40.000	50
	662	6111		WK ZN PAV MRK SHT TERM (TAB)TY Y-2 DOLLARS and CENTS	EA	5,370.000	51
	666	6303		RE PM W/RET REQ TY I (W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	101,714.000	52
	666	6312		RE PM W/RET REQ TY I (Y)4"(BRK)(100MIL) DOLLARS and CENTS	LF	11,070.000	53
	666	6315		RE PM W/RET REQ TY I (Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	40,869.000	54
	672	6009		REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	1,070.000	55
1	3017	6001		FOAMED ASPHALT TREAT (10")(DC) DOLLARS and CENTS	SY	141,200.000	56
1	3017	6003		ASPHALT BINDER (PG 64-22) DOLLARS and CENTS	TON	1,718.000	57
1	3017	6004		CEMENT DOLLARS and CENTS	TON	1,074.000	58
	6001	6002		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	2.000	59
				ALTERNATE NO. 1A DOLLARS and CENTS			

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	105	6008		REMOVING STAB BASE AND ASPH PAV (6") DOLLARS and CENTS	SY	141,200.000	60
	316	6015		ASPH (AC-15P) DOLLARS and CENTS	GAL	69,132.000	61
	316	6238		AGGR(TY-PD GR-3 SAC-B) DOLLARS and CENTS	CY	1,695.000	62
	341	6010		D-GR HMA TY-B PG70-22 DOLLARS and CENTS	TON	50,832.000	63
	351	6013		FLEXIBLE PAVEMENT STRUCTURE REPAIR(4") DOLLARS and CENTS	SY	11,296.000	64

GENERAL NOTES:

Item 5 - Control of the Work

Reference all existing striping and pavement markings in a manner which allow the markings to be re-established. Place extra reference (if needed) to ensure that the markings (lane lines, edge lines, ramp gores, etc.) are in-line with signs on OSB's, TMS arrows, etc.

Item 7 - Legal Relations and Responsibilities

For all pits or quarries, comply with the "Texas Aggregate Quarry and Pit Safety Act."

Upon completion of all work provided in the contract for any individual project, the Engineer will make an inspection. If it is found to be satisfactory, the Contractor will be released from further maintenance on that individual project. Such partial acceptance will be made in writing and will in no way void or alter any terms of the contract.

If an abandoned-in-place natural gas pipeline is encountered and has to be removed, wrapped steel gas pipelines will be assumed to contain asbestos, unless analytical testing of the wrap material determines that the wrap material contains less than 1% asbestos, as determined using the Polarized Light Microscopy (PLM) Method. Observe and comply with all federal, state and local laws, ordinances and regulations regarding the management of asbestos containing materials. At a minimum, the following procedure will be used whenever an existing wrapped steel gas pipe has to be removed (for whatever reason) during construction operations.

1. Notify the Engineer.
2. As soon as the pipe is removed, cover and secure the ends of the pipe with a double layer of 6 mil plastic, then move it to a secure temporary storage site (approved by the Engineer) within the project limits. Care will be taken to avoid damage to the plastic and if damaged, replace before further handling of the pipe. If the wrapping of the pipe is damaged, the entire pipe will be covered with plastic.
3. The Engineer will determine the owner (utility company) of the gas line to coordinate removal of the pipe from the project. If the owner of the gas pipe cannot be determined, the Engineer will make arrangements to transport the pipe

off the project. The Contractor will not be responsible for removing the pipe from the project.

4. The removal of the steel gas pipe from the trench is subsidiary to the work that created the need to remove the pipe (structural excavation, roadway excavation, removal and replacement of the pipe, etc.). The work performed in handling the pipe after it has been removed (covering with plastic, hauling to a secure storage within the project, and loading onto the transportation vehicle for removal from the project) will be paid for through the extra work order process.

If an existing asbestos Cement (AC) pipe is encountered and has to be removed, observe and comply with all federal, state and local laws, ordinances and regulations regarding the management of asbestos containing materials. At the minimum, work involving AC pipe should be overseen by a person who has received asbestos training and is familiar with the National Emissions Standards for Hazardous Air Pollutants (NESHAP). If greater than 260 linear feet of pipe is to be removed, written notification to the Texas Department of State Health Services (DSHS) 10 days prior commencing with the removal of AC pipe is required. At each location shown in the plans and/or identified during construction to involve AC pipe, remove the necessary amount of AC pipe without creating any friable material. For tie-ins remove whole sections of AC pipe at the nearest joint. Remove the AC pipe and store it in a secure (Engineer approved) location for pick up by the owner of the utility. Prior to performing this work, notify the Engineer and the owner of the utility of the work schedule 48 hours in advance of beginning the work.

Jurisdictional Waters of the United States and Project Specific Locations (PSL) Coordination - This project requires permit(s) with environmental resource agencies. There is a high probability that environmentally sensitive areas will be encountered on contractor designated project specific locations (PSLS) for the project (including but not limited to haul roads, equipment staging areas, parking areas, etc.).

Requirements for Work within Jurisdictional Waters of the United States:

The department has been authorized to perform work within designated areas of the project under U.S. Army Corps of Engineers (USACE) nationwide permit (NWP) #14 and/or #3a and/or #3b.

The contractor will not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit area (i.e. an area where the USACE has jurisdiction) that has not been previously evaluated by the USACE as part of the permitting for this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal

sites. Associated defined here includes materials delivered to or from the PSL. The permit area includes all waters of the U.S. and their associated wetlands affected by activities associated with this project. Special restrictions may be required for such work in these USACE jurisdictional areas. The contractor will be responsible for any and all consultations with the USACE regarding activities, including PSLs, which have not been previously evaluated by the USACE. The Contractor will provide the department with a copy of all consultation(s) or approval(s) from the USACE prior to initiating activities.

The contractor may proceed with activities in PSLs that do not affect a USACE permit 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. The contractor is solely responsible for documenting any determination(s) that their activities do not affect a USACE permit area. The contractor will maintain copies of their determination(s) for review by the department and/or any regulatory agency.

The disturbed area for 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, the Contractor shall provide a copy of the Contractor Notice of Intent (NOI) for the PSLs to the Engineer and to the local government operating a municipal separate storm sewer system (MS4) if applicable. If the total area of project disturbed areas and PSLs total between 1-acre but less than 5-acres, the Contractor shall post the appropriate Contractor Construction Site Notice for all Contractor PSLs to be in compliance with TCEQ storm water regulations.

In order to expedite the approval process for PSLs or to eliminate or minimize potential impacts to project progress, initiate coordination efforts with the U.S.A.C.E. within 30 days from the date of "authorization to begin work" for all PSLs that are in areas where the USACE has jurisdiction (i.e. USACE permit areas). If this is not done, the contractor waives the right to request any contract time considerations if project progress is impacted and PSL'S approval is still pending.

Requests submitted to the area engineer will be evaluated on this basis, and will require documentation showing substantial early coordination efforts to expedite the approval process as herein stated. The request will include a detailed chronological summary status with dates of coordination activities with the resource agencies, including those occurring after the initial coordination, to be reviewed and confirmed by the district's environmental section.

For PSLs that fall within USACE permit areas, the Contractor must document and coordinate with the USACE, if required, before any excavation hauled from or embankment hauled into a USACE permit area by either (1) or (2) below.

1. Restricted Use of Materials for Previously Evaluated Permit Areas. The Contractor will document both the project specific location (PSL) and their authorization and the Contractor will maintain copies for review by the Department and/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, then:
 - a. Suitable excavation of required material in the areas shown on the plans and cross sections as specified in Item 110 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area may be restricted;
 - b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area may be restricted; and,
 - c. Unsuitable excavation or excess excavation ["Waste"] (Item 110) that is disposed of at an approved location within a USACE evaluated area may be restricted.
2. Contractor Materials from Areas Other than Previously Evaluated Areas. The Contractor will provide the Department with a copy of all USACE coordination or approvals before initiating any activities for an 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, including:
 - a. Item 132, Embankment, used for temporary or permanent fill within a USACE permit area; and,
 - b. Unsuitable excavation or excess excavation ["Waste"] (Item 110, Excavation) that is disposed of outside a USACE evaluated area.

Storm Water Regulations Requirements:

The Contractor shall be responsible for (off ROW) PSLs applicable to the TCEQ Construction General Permit (CGP) requirements and will notify the Engineer of the disturbed acreage within one (1) mile of the project limits. The Contractor

shall obtain any required authorization form the TCEQ for any Contractor PSLs for construction support activities on or off ROW.

The total disturbed areas within the ROW are anticipated at less than one (1) acre and/or this project is classified as "surface work" consisting of an asphalt overlay of an existing roadway without shoulder-up disturbances. Due to this type of construction, the project qualifies for exclusion under the *Construction General Permit* (CGP) issued by the Texas Commission on Environmental Quality (TCEQ) on February 15, 2008. However; should the sum of the Engineer's anticipated disturbances and all of the Contractor's (On ROW and off ROW) PSLs equal or exceed the one (1) acre threshold, both TxDOT and the Contractor shall have project responsibilities under the CGP that reverts to non-exclusion status. To insure project compliance with all applicable water quality regulations, the Contractor shall obtain Engineer approval for all non-depicted areas of disturbance that increases the Engineer's initial soil and vegetation disturbed area estimates before associated work operations start.

Item 8 - Prosecution and Progress

No 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 and Easter weekend.

Item 9 - Measurement and Payment

Submit Material on hand (MOH) payment requests at least 5 working days prior to the end of the month for payment on that month's estimate. For out of town MOH submit requests at least 10 working days prior to the end of the month.

Item 105 - Removing Treated and Untreated Base and Asphalt Pavement

Base material to be removed under this item will remain the property of the Contractor.

Item 164 - Seeding for Erosion Control

Drill seeding will be used for this project. Refer to the Laredo District Standard Revegetation notes and specifications for additional information.

Item 300 - Asphalts, Oils, and Emulsions

Apply non-tracking tack coat at 0.06% GAL/SY (residual) or as directed by the Engineer. Verify tack coat is applied Tack every intermediate layer, unless otherwise directed. Do not dilute tack coat. Apply it through a distributor spray bar in accordance with Article 316.3.1 Distributor.

Furnish QS-1HH or CQS-1HT tack coat for Overlay Mixtures meeting the following requirements:

Property	Test Procedure	Quick Setting	
		QS-1HH	
		Min.	Max.
Viscosity, Saybolt Furol, 77°F, sec.	T 72	15	--
Storage Stability, 1 Day, %	T 59	----	1
Settlement, 5-day, %	T 59	2	5
Sieve Test, %	T 59	--	0.30
Distillation Test:1 Residue by distillation, % by wt. Oil distillate, by volume of emulsion	T 59	50 --	-- 1.0
Test on residue from distillation: Penetration, 77°F, 100g, 5 sec. Solubility in trichloroethylene, % Softening point, °F Dynamic shear, G*/sin(d), 82°F, 10 rad/s, kPa	T 49 T 44 T 53 T 315	-- 97.5 150 1.0	20 -- -- --

1. Exception to AASHTO T-59: Bring the temperature on the lower thermometer slowly to 350°F ± 10°F. Maintain at this temperature for 20 min. Complete total distillation within 60 ± 5 min. from first application of heat.

Property	Test Procedure	Quick Setting	
		CQS-1HT	
		Min	Max
Viscosity, Saybolt Furol, 122° F,sec	T 72	15	100
Storage stability, 1 Day, %	T 59	--	1
Sieve test, %	T 59	--	0.10
Particle Charge Test	T59	Positive	
Track free time ¹ , minutes	Test Strip	--	30
Distillation test: ² Residue by distillation, % by wt.	T 59	58	--
Test on residue from distillation: Penetration, 77°F, 100 g, 5 sec.	T 49	40	90

1. Exception to AASHTO T-59: Bring the temperature on the lower thermometer slowly to 350°F ± 10°F. Maintain at this temperature for 20 min. Complete total distillation in 60 ± 5 min. from first application of heat.

Spray a test strip of tack coat at a location on or near the project as directed. Consult the manufacturer for the recommended application rate. Allow the strip to cure for the maximum time specified. Drive over the test strip with equipment to simulate the effect of paving equipment. There should be no evidence tracking or picking up of the tack coat on the wheels of the equipment. The Engineer shall verify the bond strength as directed.

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, can be rejected by the Engineer. Use test method TEX-200-F, Part I for testing.

Item 316 – Seal Coat

Allow a minimum 24 hour curing period between surface events (Emulsion to asphaltic surfaces, between surface treatments and/or asphaltic pavement), or as directed in writing by the Engineer.

Addition of baghouse fines will not be permitted in the production of pre-coated material.

Before starting work, provide a sequence of work and estimated progress schedule meeting the requirements of Section 8.5.2, "Progress Schedule."

Failure to complete work within the seal coat season established by the plans will result in liquidated damages as described in Section 8.6, "Failure to Complete Work on Time." This includes any surface treatment work carried over to the next year.

In addition to other asphalt distributor requirements, the asphalt distributor shall be capable of providing a transversely varied asphalt rate. The Contractor shall demonstrate that the distributor can apply an asphalt rate outside the wheel path locations between 22 and 32 percent higher than the asphalt rate being applied in the wheel paths. The contractor's calibration of the distributor will include verification of this capability and a description of the spray bar(s) and nozzles to be used. The percentage difference in asphalt rate provided by each tested spray bar and nozzle arrangement shall be provided to the Engineer. The Engineer will select the pavements where transversely varied asphalt rate is to be provided and will provide this information at the pre-construction meeting.

The estimated application rate noted in the plans is for locations outside the wheel paths and is for estimation purposes only.

Asphalt CRS-1P is designated for winter use and asphalt AC-20-5TR is designated for summer use unless otherwise directed. The asphalt application rates shown elsewhere in the plans are for calculation purposes only. Exact rates will be as directed.

Item 320 – Equipment for Hot Mix Asphalt Materials

For staged construction, all longitudinal ACP joints shall be constructed with a 3:1 to 6:1 taper. For placement of 2 inches or more, the device will provide a maximum ½ inch vertical edge. Outside edges (next to the grass/earth) will also have a taper or will be backfilled the same day.

Final Surface course: all longitudinal ACP joints for the final Hot Mix surface course shall be in widths equal to travel lane widths so that all final course ACP joints will match the proposed lane striping (pavement markings), unless otherwise directed by the engineer.

Item 341 - Dense-Graded Hot-Mix Asphalt

Contractor is allowed to use RAP below the riding surface. Excess RAP will be designated in the plans as being retained by the contractor.

HMACP TY	Application Rate	PG Binder	Lab Density
A*	120 #/SY/IN	70 -22	96.5%
B*	120 #/SY/IN	70 -22	96.5%
C*	115 #/SY/IN	70 -22	96.5%
D*	115 #/SY/IN	70 -22	96.5%

* If mix has RAP, RAS, or both, the required lab density will be 97%.

In addition to the tack coat materials specified in these standard specifications, MS-2 or MS-1 may be used.

Use the point of sampling for tests, test method TEX-217-F (part I and part II), for the coarse aggregate stockpile when the dryer-drum mixing plant is used. The point of sampling when the batch plant is used will be at the hot bins.

Refer to item 585 for ride quality requirements.

The use of RAP or RAS will not be allowed on the final riding surface.

Item 347: Thin Overlay Mixtures (TOM)

Provide an asphalt binder PG 76-22. Substitution of the PG binder is not allowed.

Place mixture at the compacted lift thickness of one (1) inch.

Provide 100% SAC "A" aggregate. Blending of coarse aggregate is not allowed. A maximum of 20% SAC "B" screening material can be used.

Do not use RAP or RAS in the mixture.

For breakdown rolling use two steel-wheel rollers working in tandem without excessive breakage of the aggregate and provide a smooth surface and uniform texture, keeping the rollers as close as possible to the lay-down machine. Do not use pneumatic-tire rollers. Use a steel wheel as the finish roller.

In addition to mix design, furnish the engineer with the following samples:

6 samples molded at optimum asphalt content at 7% air voids content

6 samples molded at optimum +/- 0.3%

Mold samples 6 inches diameter by 2.4 inches thick (Hamburg sized samples).
Furnish material is to be sent to Texas Transportation Institute (TTI) for Hamburg
Wheel Test and Overlay test. This work is subsidiary to the various bid items.

The engineer will determine the final asphalt content to be used for the trial batch
and production.

Basis of Estimate

Item	Description	Limit and Rate	Unit
347	Thin Overlay Mixture (TOM) • Asphalt PG 76-22 (surface) • Aggregate SAC A (surface)	115 Lb. / Sq. Yd.-In. 6.8 % by weight 93.2 % by weight	TON

The tack coat material shall be placed at a rate of approximately 0.07 gal/sy.
Underseals will be tacked at a rate of 0.04 gal/sy.

Item 351 - Flexible Pavement Structure Repair

The section of roadway where the repair is to be made will be the entire width of
the lane and a minimum length of 2 feet on each end of the length of
deterioration, unless otherwise directed by the engineer.

Item 500 - Mobilization

"Materials-on-Hand" payments will not be considered in determining percentages
used to compute mobilization payments.

Item 502 - Barricades, Signs, and Traffic Handling

Designate, as the Contractor Responsible Person (CRP), an English speaking
employee on-call nights and weekends (or any other time that work is not in
progress) with a local address and telephone number for maintenance of signs
and barricades. This employee will be located within one (1) hour of traveling
time to the project site. Notify the Engineer in writing of the name, address and
telephone number of this employee. Furnish this information to local law
enforcement officials.

The time frame for the Contractor to provide properly maintained traffic control devices before they are considered to be in non-compliance with this Item, is 48 hours regardless of the days of the week involved after notification is done in writing by the Engineer.

When advanced warning flashing arrow panel(s) is/are specified, maintain one standby unit in good condition at the job site ready for immediate use is required.

Place eight inches of both red and white stripes in an inverted "V" design on the back of all TMA's. Conform all sheeting to Departmental Material Specification D-9-8300, Type C.

Provide two-way radios in areas where flagmen do not have visual contact with one another or cannot communicate with one another.

Provide shadow vehicles equipped with Truck Mounted Attenuators (TMA) as shown on Traffic Control Plan (TCP) standards (2 series).

Limit lane closures to a maximum of 2 miles. If more than one lane closure location is desired, provide a minimum of a 2 mile passing zone between locations. Provide a separate sign set up for each location.

Ensure equipment not in use, stockpile aggregate, and other working materials are:

- A minimum of 30 feet from the edge of the travel lane;
- Do not obstruct traffic or sight distance;
- Do not interfere with the access from abutting property; or
- Do not interfere with roadway drainage.

Erect signs in locations not obstructing the traveling public's view of the normal roadway signing or necessary sight distance at intersections and curves.

During the holiday time frame of December 21st through January 1st, every effort should be taken to ensure that all travel lanes remain open where possible.

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.

Item 504 - Field Office and Laboratory

Provide a Type D Structure. Ensure the field lab has an office for TxDOT use along with a lockable file cabinet, desk, and chair. Contractor must have at least two designated parking spaces for TxDOT field lab personnel vehicles.

Contractor is responsible to transport to and from the field lab TxDOT owned testing equipment required for hotmix operations. Contractor will pick up, deliver, install, and set up TxDOT owned equipment required in the field lab. TxDOT owned equipment required in the field lab will be picked up at LRD DST LAB, or as determined by the LRD DST LAB supervisor.

Pick up and deliver TxDOT owned equipment under the supervision of a TxDOT lab technician. A TxDOT lab technician will verify the installation and set-up of the equipment at least 48 hrs prior to beginning of hotmix operations (trial batch included).

All equipment will be returned by the contractor in the same manner and location as it was picked up. Contractor is responsible for any damages incurred to TxDOT equipment.

Item 506 - Temporary Erosion, Sedimentation, and Environmental Controls

It is not anticipated that any erosion, sedimentation, or environmental control devices will be needed on this project. However, in the event that such controls are necessary, the SW3P for this project shall consist of the use of any temporary erosion control measures deemed necessary by the Engineer and as provided under this item. Payment for this work will be determined in accordance with Article 4.4, "Changes in the Work".

Item 512 - Portable Traffic Barrier

Do not use different types of Portable Traffic Barriers in a single continuous installation.

All Portable Traffic Barriers (PTB) will remain the property of the State.

Furnish connection hardware. The hardware will not be paid separately but will be subsidiary to this pay item.

Item 545 - Crash Cushion Attenuators

All materials and work required to install crash cushion attenuator will not be paid for directly, but will be considered subsidiary to item 545 "Crash Cushion Attenuators." Refer to standard sheet(s) for additional details on selected crash cushion attenuators.

Stockpile crash cushion to the storage site location 1106 South Norton, Freer, TX 78357 or as directed by the Engineer, when no longer needed on the project.

Item 585 - Ride Quality for Pavement Surfaces

Use pay adjustment schedule 3.

Item 6001 - Portable Changeable Message Sign

Provide two (2) electronic portable changeable message signs as required by the Engineer. Provide backups and keep operational and available on the jobsite at all times during traffic control operations. The electronic portable changeable message signs will be made available for utilization for the entire duration of the project, including all alternative locations.

CONTROL : 0237-04-013
PROJECT : STP 2016(855)
HIGHWAY : SH 44
COUNTY : DUVAL

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 NOVEMBER 1, 2014.
STANDARD SPECIFICATIONS ARE INCORPORATED
INTO THE CONTRACT BY REFERENCE.

ITEMS 1 TO 9 INCL., GENERAL REQUIREMENTS AND COVENANTS
ITEM 105 REMOVING TREATED AND UNTREATED BASE AND ASPHALT PAVEMENT
ITEM 150 BLADING
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 310 PRIME COAT (300)(316)
ITEM 316 SEAL COAT (210)(300)(302)(340)(520)
ITEM 341 DENSE-GRADED HOT-MIX ASPHALT (300)(301)(320)(520)(585)
ITEM 347 THIN OVERLAY MIXTURES (TOM) (300)(301)(320)(520)(585)
ITEM 351 FLEXIBLE PAVEMENT STRUCTURE REPAIR (132)(204)(247)(260)
(263)(275)(276)(292)(310)(316)(330)(334)(340)
ITEM 401 FLOWABLE BACKFILL (421)
ITEM 464 REINFORCED CONCRETE PIPE (400)(402)(403)(467)(476)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(432)(440)(442)(445)
(460)(464)
ITEM 480 CLEANING EXISTING CULVERTS
ITEM 496 REMOVING STRUCTURES
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING
ITEM 504 FIELD OFFICE AND LABORATORY
ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL
CONTROLS (161)(432)(556)
ITEM 510 ONE-WAY TRAFFIC CONTROL (502)
ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)
(442)
ITEM 540 METAL BEAM GUARD FENCE (421)(441)(445)(529)
ITEM 542 REMOVING METAL BEAM GUARD FENCE
ITEM 544 GUARDRAIL END TREATMENTS
ITEM 545 CRASH CUSHION ATTENUATORS (421)
ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)
ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)

ITEM 666 RETROREFLECTORIZED PAVEMENT MARKINGS (316) (502) (662) (677)
(678) (6040)
ITEM 672 RAISED PAVEMENT MARKERS (677) (678)

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

REQUIRED CONTRACT PROVISIONS, FEDERAL-AID CONSTRUCTION CONTRACTS
(FORM FHWA 1273, MAY, 2012)

WAGE RATES

SPECIAL PROVISION "SCHEDULE OF LIQUIDATED DAMAGES" (000---001)
SPECIAL PROVISION "NONDISCRIMINATION" (000---002)
SPECIAL PROVISION "CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT"
(000---003)
SPECIAL PROVISION "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO
ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)
SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS" (000---005)
SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000---006)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID
CONTRACTS" (000---007)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000---010)
SPECIAL PROVISION TO ITEM 2 (002---004)
SPECIAL PROVISION TO ITEM 3 (003---008)
SPECIAL PROVISION TO ITEM 6 (006---001)
SPECIAL PROVISIONS TO ITEM 7 (007---001) (007---003) (007---004)
SPECIAL PROVISION TO ITEM 300 (300---009)
SPECIAL PROVISION TO ITEM 506 (506---003)

SPECIAL SPECIFICATIONS:

ITEM 3017 FULL-DEPTH RECYCLING AND TREATMENT USING FOAMED ASPHALT
(ROAD-MIXED)
ITEM 6001 PORTABLE CHANGEABLE MESSAGE SIGN
ITEM 6040 MOBILE RETROREFLECTIVITY DATA COLLECTION FOR PAVEMENT
MARKINGS

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.

Special Provision to Item 3

Award and Execution of Contract



Item 3, "Award and Execution of Contract" 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 4. "Execution of Contract," is supplemented by the following:

Section 4.7. Certificate of Interested Parties Disclosure. Submit a signed notarized Certificate of Interested Parties Disclosure form 1295 downloaded from the Texas Ethics Commission's website.

Special Specification 6040

Mobile Retroreflectivity Data Collection for Pavement Markings



1. DESCRIPTION

Furnish mobile retroreflectivity data collection (MRDC) for pavement markings on roadways as shown in the plans or as designated by the Engineer. Conduct MRDC on dry pavement only.

2. EQUIPMENT AND PERSONNEL

- 2.1. **Mobile Retroreflectometer.** Provide a self-propelled, mobile retroreflectometer certified by the Texas Transportation Institute (TTI) Mobile Retroreflectometer Certification Program.
- 2.2. **Portable Retroreflectometer.** Provide a portable retroreflectometer that uses 30-meter geometry meeting the requirements described in ASTM E1710. Maintain, service, and calibrate all portable retroreflectometers according to the manufacturer's instructions.
- 2.3. **Operating Personnel for Mobile Retroreflectometer.** Provide all personnel required to operate the mobile retroreflectometer and portable retroreflectometer. Ensure MRDC system operator has a current certification from the TTI Mobile Retroreflectometer Certification Program to conduct MRDC with the certified mobile retroreflectometer provided.
- 2.4. **Additional Personnel.** Provide any other personnel necessary to compile, evaluate, and submit MRDC.
- 2.5. **Safety Equipment.** Supply and operate all required safety equipment to perform this service.

3. MRDC DOCUMENTATION

Document all MRDC by county and roadway or as directed by the Engineer. Submit all data to the Department no later than three working days after the day the data is collected. Submit all raw data collected in addition to all other data submitted. Provide data files in Microsoft Excel format or a format approved by the Engineer. Provide a high-quality DVD showing the markings as they are measured. The data file and video must contain the following information:

- 3.1. **Preliminary Documentation Sample.** Submit a sample data file, video, and map of MRDC data in the required format ten working days prior to beginning any work. The format must meet specification and be approved by the Engineer before any work may begin.
- 3.2. **Initial Documentation Review and Approval.** The Department will review documentation submitted for the first day of MRDC, and if it does not meet specification requirements, will not allow further MRDC until deficiencies are corrected. The Department will inform the contractor no later than three working days after submittal if the first day of MRDC does not meet specification requirements. Time charges will continue unless otherwise directed by the Engineer.
- 3.3. **Data File.** Provide data files with the following:
 - date;
 - district number;
 - county;

- route number with reference markers or other reference information provided by the Engineer to indicate the location of beginning and end data collection points on that roadway;
- cardinal direction;
- line type (single solid, single broken, double solid, etc.);
- line color;
- file name corresponding to video;
- data for each centerline listed separately;
- average reading taken for each 0.1 mi. interval or interval designated by the Engineer;
- accurate GPS coordinates (within 20 feet) for each interval;
- color-coding for each interval indicating passing or failing, unless otherwise directed by the Engineer (Passing and failing thresholds will be provided by the Engineer);
- graphical representation of the MRDC (y-axis showing retroreflectivity and x-axis showing intervals) corresponding with each data file;
- distance in miles driven while measuring the pavement markings;
- event codes (pre-approved by the Engineer) indicating problems with measurement;
- portable retroreflectometer field check average reading and corresponding mobile average reading for that interval when applicable; and
- upper validation threshold (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

3.4. **Map in Electronic Format.** Provide a map in an electronic format approved by the Engineer with each MRDC submission that includes the following information:

- date;
- district number;
- county;
- color-coded one mile intervals (or interval length designated by the Engineer) for passing and failing retroreflectivity values or retroreflectivity threshold values provided by the Engineer; and
- percentage of passing and failing intervals, if required by the Engineer.

3.5. **Video.** Provide a high-quality DVD with the following information:

- labeled with date and corresponding data file name;
- district number;
- county;
- route number with reference markers or other designated reference information to indicate the location of beginning and end collection points on that roadway; and
- retroreflectivity values presented on the same screen with the following information:
 - date;
 - location;
 - starting and ending mileage;
 - total miles;
 - retroreflectivity readings; and
 - upper validation thresholds (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

3.6. **Field Comparison Checks with a Portable Retroreflectometer.** Take a set of field comparison readings with the portable retroreflectometer at least once every four hours while conducting MRDC or at the frequency designated by the Engineer. Take a minimum of twenty readings, spread out over the interval measured. List the average portable retroreflectometer reading next to the mobile average reading for that interval with the reported MRDC data. Request approval from the Engineer to take field comparison readings on a separate roadway, when measuring a roadway where portable retroreflectometer readings are difficult to take. Take the off-location field comparison readings at no additional cost. Submit the portable

retroreflectometer printout of all the readings taken for the field comparison check with the corresponding MRDC data submitted. The mobile average reading must be within $\pm 15\%$ of the portable average reading. The Engineer may require new MRDC for some or all of the pavement markings measured in a four hour interval prior to a field comparison check not meeting the $\pm 15\%$ range. Provide the new MRDC at no extra cost to the Department. The Engineer may take readings with a Department portable retroreflectometer to ensure accuracy at any time. The Department's Construction Division will take comparison readings and serve as the referee if there is a significant difference between the Engineer's portable readings and the Contractor's mobile and handheld readings. For best results, take field comparison readings on a fairly flat and straight roadway when possible.

- 3.7. **Periodic Field Checks at Pre-Measured Locations.** When requested by the Engineer, measure with the mobile unit and report to the Engineer immediately after measurement the average retroreflectivity values for a designated pre-measured test location. The Engineer will have taken measurements at the test location within ten days of the test. The test location will not include pavement markings less than thirty days old. If the measured averages do not fall within $\pm 15\%$ of the pre-measured averages, further calibration and comparison measurements may be required before any further MRDC. Submit the results of the field check with the MRDC report for that day.

4. **FINAL REPORT**

Submit a final report in the format specified by the Engineer to the Department's Traffic Engineering representative within one calendar week after the service is complete. The final report must contain a list of all problems encountered (pre-approved event codes) and the locations where problems occurred during MRDC.

5. **MEASUREMENT**

When mobile retroreflectivity data collection for pavement markings is specified on the plans to be a pay item, measurement will be by the mile driven while measuring pavement markings.

6. **PAYMENT**

Unless otherwise specified on the plans, the work performed, materials furnished, equipment, labor, tools, and incidentals will not be paid for directly, but will be considered subsidiary to bid items of the Contract. When mobile retroreflectivity data collection for pavement markings is specified on the plans to be a pay item, the work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Mobile Retroreflectivity Data Collection." This price is full compensation for providing summaries of readings to the Engineer, equipment calibration and prequalification, equipment, labor, tools, and incidentals.