

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 8/01/2013

Control	0013-08-127
Project	NH 2013(802)
Highway	US 81
County	WISE

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: NH 2013(802)

CONTROL: 0013-08-127

COUNTY: WISE

LETTING: 08/06/2013

REFERENCE NO: 0801

PROPOSAL ADDENDUMS

- X PROPOSAL COVER
- X BID INSERTS (SH. NO.: 3-17 - 17-17)
- X GENERAL NOTES (SH. NO.: Z - DD)

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

DELETED:

- _ SPECIAL SPECIFICATIONS:
- ADDED:

DELETED:

X OTHER: See changes outlined below.

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

Proposal Cover:

Working days revised to 543.

Bid Inserts:

- Sheet 3-17: Item 360-2017 is deleted.
- Item 360-2018 is added.
- Item 416-2018 is added.
- Sheet 8-17: Item 512-2044 is deleted.
- Item 512-2045 is deleted.
- Item 512-2049 quantity change.
- Item 512-2050 quantity change.
- Item 512-2051 quantity change.
- Sheet 9-17: Item 545-2049 quantity change.
- Item 545-2050 quantity change.
- Item 545-2051 quantity change.

General Notes:

Sheets Z - DD are added to include Roadway Illumination notes.

Plan Set:

The following sheets are replaced:

2, 3L, 4, 4A - 4C, 274

The following sheets are added:

DESCRIPTION OF ABOVE CHANGES

(CONTINUED)

(INCLUDING PLANS SHEET CHANGES)

3M, 3N, 17H, 153B - 153E, 277A - 277B, 284A - 284D

Control	0013-08-127
Project	NH 2013(802)
Highway	US 81
County	WISE

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2004 SPECIFICATIONS

WORK CONSISTING OF GRADING, BASE, DRAIN, STRUCT, PAVMENT WISE COUNTY, TEXAS

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

This project is to be completed in 543 working days and will be accepted when fully completed and finished to the satisfaction of the Executive Director or designee.

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

ONE HUNDRED THOUSAND (Dollars) (\$100,000)

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

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

By signing the proposal the bidder certifies:

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

• **Signed: ****

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

Print Name:

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

Title:

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

Company:

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

- Signatures to comply with Item 2 of the specifications.

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

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

NOTICE TO CONTRACTORS

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

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

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	135.300	1
	104	2001		REMOVING CONC (PAV) DOLLARS and CENTS	SY	11,201.000	2
	104	2009		REMOVING CONC (RIPRAP) DOLLARS and CENTS	SY	114.000	3
	104	2017		REMOVING CONC (DRIVEWAYS) DOLLARS and CENTS	SY	497.000	4
	105	2037		REMOVING STAB BASE AND ASPH PAV(0"- 16") DOLLARS and CENTS	SY	57,181.000	5
	110	2001		EXCAVATION (ROADWAY) DOLLARS and CENTS	CY	84,689.000	6
	132	2004		EMBANKMENT (FINAL)(DENS CONT)(TY B) DOLLARS and CENTS	CY	211,353.000	7
	158	2005		SPEC EXCAV WORK (ORIGINAL) DOLLARS and CENTS	CY	18,286.000	8
	161	2005	006	COMPOST MANUF TOPSOIL (PB) (4") DOLLARS and CENTS	SY	308,302.000	9
	164	2035	002	DRILL SEEDING (PERM) (RURAL) (CLAY) DOLLARS and CENTS	SY	308,302.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	164	2041	002	DRILL SEEDING (TEMP) (WARM) DOLLARS and CENTS	SY	154,151.000	11
	164	2043	002	DRILL SEEDING (TEMP) (COOL) DOLLARS and CENTS	SY	154,151.000	12
	168	2001		VEGETATIVE WATERING DOLLARS and CENTS	MG	10,790.000	13
	180	2001		WILDFLOWER SEEDING DOLLARS and CENTS	AC	20.100	14
	247	2060	033	FL BS (CMP IN PLC)(TY E GR 4)(FNAL POS) DOLLARS and CENTS	CY	766.000	15
	247	2227	033	FL BS (CMP IN PLC)(TY A OR B GR 4)(8") DOLLARS and CENTS	SY	113,160.000	16
	275	2001	003	CEMENT DOLLARS and CENTS	TON	36.000	17
	275	2018	003	CEMENT TREAT (NEW BASE)(36") DOLLARS and CENTS	SY	768.000	18
	305	2030		SALV, HAUL & STKPL RCL ASH PV (12") DOLLARS and CENTS	SY	50,851.000	19
	310	2030		PRIME COAT (MC-30 OR EC-30) DOLLARS and CENTS	GAL	41,938.000	20
	316	2706	016	ASPH (TIER II) DOLLARS and CENTS	GAL	55,917.000	21

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	316	2718	016	AGGR (TIER II) DOLLARS and CENTS	CY	1,271.000	22
	351	2008		FLEXIBLE PAVEMENT STRUCTURE REPAIR(12") DOLLARS and CENTS	SY	50.000	23
	351	2026		FLEX PAVEMENT STRUCTURE REPAIR (5"- 10") DOLLARS and CENTS	SY	1,000.000	24
	354	2002		PLAN & TEXT ASPH CONC PAV(0" TO 2") DOLLARS and CENTS	SY	5,152.000	25
	360	2018	003	CURB (TYPE II) DOLLARS and CENTS	LF	2,814.000	26
	361	2009	001	FULL-DEPTH REPAIR CPCD (8") DOLLARS and CENTS	SY	50.000	27
	402	2001		TRENCH EXCAVATION PROTECTION DOLLARS and CENTS	LF	647.000	28
	416	2001		DRILL SHAFT (18 IN) DOLLARS and CENTS	LF	200.000	29
	416	2004		DRILL SHAFT (36 IN) DOLLARS and CENTS	LF	678.000	30
	416	2018		DRILL SHAFT (SIGN MTS)(24 IN) DOLLARS and CENTS	LF	45.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	416	2029		DRILL SHAFT (RDWY ILL POLE) (30 IN) DOLLARS and CENTS	LF	200.000	32
	420	2033	002	CL S CONC (APPR SLAB) DOLLARS and CENTS	CY	377.600	33
	420	2041	002	CL C CONC (ABUT)(HPC) DOLLARS and CENTS	CY	134.800	34
	420	2042	002	CL C CONC (BENT)(HPC) DOLLARS and CENTS	CY	125.600	35
	422	2003		REINF CONC SLAB (HPC)(CL S) DOLLARS and CENTS	SF	22,400.000	36
	425	2068	001	PRESTR CONC GIRDER (TX54) DOLLARS and CENTS	LF	2,466.520	37
	432	2001		RIPRAP (CONC)(4 IN) DOLLARS and CENTS	CY	398.800	38
	432	2002		RIPRAP (CONC)(5 IN) DOLLARS and CENTS	CY	26.000	39
	432	2033		RIPRAP (STONE COMMON)(DRY)(12 IN) DOLLARS and CENTS	CY	276.000	40
	432	2035		RIPRAP (CONC)(6 IN) DOLLARS and CENTS	CY	2.000	41
	432	2039		RIPRAP (MOW STRIP)(4 IN) DOLLARS and CENTS	CY	125.000	42

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	432	2041		RIPRAP (STONE COMMON)(DRY)(18 IN) DOLLARS and CENTS	CY	245.000	43
	442	2048	016	STRUCTURAL STEEL(MISC NON-BRIDGE) DOLLARS and CENTS	LB	1,332.000	44
	450	2211	001	RAIL (TY T551) (HPC) DOLLARS and CENTS	LF	1,240.000	45
	454	2001	003	SEALED EXPANSION JOINT (4 IN)(SEJ-A) DOLLARS and CENTS	LF	180.000	46
	462	2001	015	CONC BOX CULV (3 FT X 2 FT) DOLLARS and CENTS	LF	22.000	47
	462	2002	015	CONC BOX CULV (3 FT X 3 FT) DOLLARS and CENTS	LF	171.000	48
	462	2003	015	CONC BOX CULV (4 FT X 2 FT) DOLLARS and CENTS	LF	241.000	49
	462	2004	015	CONC BOX CULV (4 FT X 3 FT) DOLLARS and CENTS	LF	118.000	50
	462	2015	015	CONC BOX CULV (7 FT X 4 FT) DOLLARS and CENTS	LF	11.000	51
	464	2003	006	RC PIPE (CL III)(18 IN) DOLLARS and CENTS	LF	664.000	52
	464	2005	006	RC PIPE (CL III)(24 IN) DOLLARS and CENTS	LF	1,910.000	53

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	464	2007	006	RC PIPE (CL III)(30 IN) and DOLLARS CENTS	LF	66.000	54
	464	2009	006	RC PIPE (CL III)(36 IN) and DOLLARS CENTS	LF	118.000	55
	464	2010	006	RC PIPE (CL III)(42 IN) and DOLLARS CENTS	LF	145.000	56
	465	2014	001	MANH (COMPL)(JUNCT BOX) and DOLLARS CENTS	EA	1.000	57
	465	2032	001	INLET (COMPL)(CURB)(TY 1)(10' X 3') and DOLLARS CENTS	EA	2.000	58
	465	2038	001	INLET (COMPL)(CURB)(TY 1)(20' X 3') and DOLLARS CENTS	EA	3.000	59
	465	2077	001	INLET (COMPL)(DROP)(TY 1) and DOLLARS CENTS	EA	14.000	60
	465	2078	001	INLET (COMPL)(DROP)(TY 1-C) and DOLLARS CENTS	EA	3.000	61
	466	2025		WINGWALL (FW-0)(HW=9 FT) and DOLLARS CENTS	EA	1.000	62
	467	2024		SET (TY I)(S= 3 FT)(HW= 4 FT)(3:1)(C) and DOLLARS CENTS	EA	2.000	63
	467	2031		SET (TY I)(S= 4 FT)(HW= 4 FT)(3:1)(C) and DOLLARS CENTS	EA	8.000	64

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	467	2151		SET (TY I)(S= 3 FT)(HW= 3 FT)(6:1)(C) DOLLARS and CENTS	EA	1.000	65
	467	2211		SET (TY II)(24 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	7.000	66
	467	2213		SET (TY II)(30 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	2.000	67
	467	2216		SET (TY II)(42 IN)(RCP)(3:1)(C) DOLLARS and CENTS	EA	1.000	68
	467	2236		SET (TY II)(24 IN)(RCP)(6:1)(C) DOLLARS and CENTS	EA	1.000	69
	467	2286		SET (TY II)(18 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	8.000	70
	467	2288		SET (TY II)(24 IN)(RCP)(6:1)(P) DOLLARS and CENTS	EA	8.000	71
	496	2004		REMOV STR (SET) DOLLARS and CENTS	EA	17.000	72
	496	2005		REMOV STR (WINGWALL) DOLLARS and CENTS	EA	3.000	73
	496	2007		REMOV STR (PIPE) DOLLARS and CENTS	LF	453.000	74
	500	2001	011	MOBILIZATION DOLLARS and CENTS	LS	1.000	75

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HAN- DLING DOLLARS CENTS and	MO	26.000	76
	508	2002		CONSTRUCTING DETOURS DOLLARS CENTS and	SY	2,258.000	77
	512	2049	002	PORT CTB (DES SOURCE)(F-SHAPE)(TY 1) DOLLARS CENTS and	LF	6,510.000	78
	512	2050	002	PORT CTB (MOVE)(F-SHAPE)(TY 1) DOLLARS CENTS and	LF	3,360.000	79
	512	2051	002	PORT CTB (STOCKPILE)(F-SHAPE)(TY 1) DOLLARS CENTS and	LF	6,510.000	80
	530	2011	006	DRIVEWAYS (ACP) DOLLARS CENTS and	SY	2,511.000	81
	531	2004		CONC SIDEWALKS (6") DOLLARS CENTS and	SY	568.000	82
	531	2010		CURB RAMPS (TY 7) DOLLARS CENTS and	EA	6.000	83
	540	2011	031	MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS CENTS and	EA	4.000	84
	540	2017	031	MTL W-BEAM GD FEN (ROUND TIMBER POST) DOLLARS CENTS and	LF	650.000	85

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	540	2044	031	DOWNSTREAM ANCHOR TERMINAL(DAT)SECTION DOLLARS CENTS and	EA	1.000	86
	542	2001		REMOVING METAL BEAM GUARD FENCE DOLLARS CENTS and	LF	550.000	87
	544	2006		GDRAIL END TRT(INST)(WOOD POST)(TY III) DOLLARS CENTS and	EA	6.000	88
	545	2049		CRASH CUSH ATTEN (INSTL)(WORK ZONE) DOLLARS CENTS and	EA	7.000	89
	545	2050		CRASH CUSH ATTEN(MOV&RESET)(WORK ZONE) DOLLARS CENTS and	EA	3.000	90
	545	2051		CRASH CUSH ATTEN (REMOVE)(WORK ZONE) DOLLARS CENTS and	EA	7.000	91
	552	2003		WIRE FENCE (TY C) DOLLARS CENTS and	LF	178.000	92
	552	2006		GATE (TY 2) DOLLARS CENTS and	EA	1.000	93
	556	2006		PIPE UNDERDRAINS (TY 6) (6") DOLLARS CENTS and	LF	1,000.000	94

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	560	2006	001	MAILBOX INSTALL-S (RR-POST) TY 4 FND-TB DOLLARS and CENTS	EA	4.000	95
	610	2025	015	INS RD IL AM (TY SA) 40T-8 (.25 KW)S DOLLARS and CENTS	EA	25.000	96
	610	2060	015	INS RD IL AM (U/P) (TY 1) (.15KW)S DOLLARS and CENTS	EA	8.000	97
	618	2018		CONDT (PVC) (SCHD 40) (2") DOLLARS and CENTS	LF	4,428.000	98
	618	2035		CONDT (PVC) (SCHD 80) (2") (BORE) DOLLARS and CENTS	LF	934.000	99
	618	2046		CONDT (RM) (1") DOLLARS and CENTS	LF	80.000	100
	620	2011	001	ELEC CONDR (NO. 8) BARE DOLLARS and CENTS	LF	5,657.000	101
	620	2012	001	ELEC CONDR (NO. 8) INSULATED DOLLARS and CENTS	LF	12,732.000	102
	624	2007	014	GROUND BOX TY A (122311) DOLLARS and CENTS	EA	16.000	103
	628	2018	003	ELC SRV TY A 240/480 060 (NS)SS(E)SP(U) DOLLARS and CENTS	EA	5.000	104

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	636	2001	014	ALUMINUM SIGNS (TY A) DOLLARS and CENTS	SF	42.000	105
	636	2002	014	ALUMINUM SIGNS (TY G) DOLLARS and CENTS	SF	1,116.000	106
	644	2001		IN SM RD SN SUP&AM TY10BWG(1)SA(P) DOLLARS and CENTS	EA	69.000	107
	644	2004		IN SM RD SN SUP&AM TY10BWG(1)SA(T) DOLLARS and CENTS	EA	24.000	108
	644	2006		IN SM RD SN SUP&AM TY10BWG(1)SA(U) DOLLARS and CENTS	EA	3.000	109
	644	2025		IN SM RD SN SUP&AM TYS80(1)SA(T) DOLLARS and CENTS	EA	3.000	110
	644	2027		IN SM RD SN SUP&AM TYS80(1)SA(U) DOLLARS and CENTS	EA	3.000	111
	644	2031		IN SM RD SN SUP&AM TYS80(1)SA(U-WC) DOLLARS and CENTS	EA	1.000	112
	647	2001		INSTALL LRSS (STRUCT STEEL) DOLLARS and CENTS	LB	3,595.000	113
	662	2056		WK ZN PAV MRK REMOV (REFL) TY II-C-R DOLLARS and CENTS	EA	297.000	114
	662	2064		WK ZN PAV MRK REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	2,523.000	115

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	662	2067		WK ZN PAV MRK REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	12,265.000	116
	662	2099		WK ZN PAV MRK REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	12,672.000	117
	666	2006		REFL PAV MRK TY I (W) 4" (DOT)(100MIL) DOLLARS and CENTS	LF	771.000	118
	666	2030		REFL PAV MRK TY I (W) 8" (DOT)(100MIL) DOLLARS and CENTS	LF	176.000	119
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	6,635.000	120
	666	2042		REFL PAV MRK TY I (W) 12"(SLD)(100MIL) DOLLARS and CENTS	LF	1,152.000	121
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	187.000	122
	666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	13.000	123
	666	2078		REFL PAV MRK TY I(W) (ISLAND) (100MIL) DOLLARS and CENTS	SF	7,392.000	124
	666	2093		REFL PAV MRK TY I(W)(UTURN ARW)(100MIL) DOLLARS and CENTS	EA	4.000	125

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	14.000	126
	666	2102		REF PAV MRK TY I(W)36"(YLD TRI)(100MIL) DOLLARS and CENTS	EA	32.000	127
	666	2138		REFL PAV MRK TY I (Y) (ISLAND)(100MIL) DOLLARS and CENTS	SF	15,701.000	128
	666	2142		REF PAV MRK TY II (W) 4" (BRK) DOLLARS and CENTS	LF	7,121.000	129
	666	2143		REF PAV MRK TY II (W) 4" (DOT) DOLLARS and CENTS	LF	771.000	130
	666	2145		REF PAV MRK TY II (W) 4" (SLD) DOLLARS and CENTS	LF	38,281.000	131
	666	2151		REF PAV MRK TY II (W) 8" (DOT) DOLLARS and CENTS	LF	176.000	132
	666	2153		REF PAV MRK TY II (W) 8" (SLD) DOLLARS and CENTS	LF	6,635.000	133
	666	2155		REF PAV MRK TY II (W) 12" (SLD) DOLLARS and CENTS	LF	1,152.000	134
	666	2157		REF PAV MRK TY II (W) 24" (SLD) DOLLARS and CENTS	LF	187.000	135
	666	2160		REF PAV MRK TY II (W) (ARROW) DOLLARS and CENTS	EA	13.000	136

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2168		REF PAV MRK TY II (W) (ISLAND) DOLLARS and CENTS	SF	7,392.000	137
	666	2172		REF PAV MRK TY II (W) (UTURN ARROW) DOLLARS and CENTS	EA	4.000	138
	666	2173		REF PAV MRK TY II (W) (WORD) DOLLARS and CENTS	EA	14.000	139
	666	2175		REF PAV MRK TY II (W) 36" (YLD TRI) DOLLARS and CENTS	EA	32.000	140
	666	2178		REF PAV MRK TY II (Y) 4" (SLD) DOLLARS and CENTS	LF	35,215.000	141
	666	2187		REF PAV MRK TY II (Y) (ISLAND) DOLLARS and CENTS	SF	15,701.000	142
	672	2012	034	REFL PAV MRKR TY I-C DOLLARS and CENTS	EA	62.000	143
	672	2015	034	REFL PAV MRKR TY II-A-A DOLLARS and CENTS	EA	66.000	144
	672	2017	034	REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	666.000	145
	677	2001		ELIM EXT PAV MRK & MRKS (4") DOLLARS and CENTS	LF	21,305.000	146
	678	2001		PAV SURF PREP FOR MRK (4") DOLLARS and CENTS	LF	101,727.000	147

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	678	2003		PAV SURF PREP FOR MRK (8") DOLLARS and CENTS	LF	6,811.000	148
	678	2004		PAV SURF PREP FOR MRK (12") DOLLARS and CENTS	LF	1,152.000	149
	678	2006		PAV SURF PREP FOR MRK (24") DOLLARS and CENTS	LF	187.000	150
	678	2007		PAV SURF PREP FOR MRK (ARROW) DOLLARS and CENTS	EA	13.000	151
	678	2011		PAV SURF PREP FOR MRK (ISLAND) DOLLARS and CENTS	SF	23,093.000	152
	678	2013		PAV SURF PREP FOR MRK (RPM) DOLLARS and CENTS	EA	794.000	153
	678	2016		PAV SURF PREP FOR MRK (UTURN ARR) DOLLARS and CENTS	EA	13.000	154
	678	2018		PAV SURF PREP FOR MRK (WORD) DOLLARS and CENTS	EA	14.000	155
	678	2020		PAV SURF PREP FOR MRK (36") (YLD TRI) DOLLARS and CENTS	EA	32.000	156
	1122	2002	001	ROCK FILTER DAMS (INSTALL) (TY 2) DOLLARS and CENTS	LF	2,525.000	157
	1122	2009	001	ROCK FILTER DAMS (REMOVE) DOLLARS and CENTS	LF	145.000	158

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	1122	2016	001	CONSTRUCTION EXITS (INSTALL) (TY 1) DOLLARS and CENTS	SY	4,707.000	159
	1122	2019	001	CONSTRUCTION EXITS (REMOVE) DOLLARS and CENTS	SY	4,707.000	160
	1122	2037	001	TEMPORARY SEDIMENT CONTROL FENCE INSTLL DOLLARS and CENTS	LF	11,362.000	161
	1122	2048	001	BIOGRD EROSN CONT LOGS (12" DIA)INSTALL DOLLARS and CENTS	LF	10,198.000	162
	1122	2056	001	BIODEGRADBLE EROSION CONTROL LOGS REMOV DOLLARS and CENTS	LF	5,099.000	163
	1122	2057	001	TEMPORARY SEDIMENT CONTROL FENCE REMOVE DOLLARS and CENTS	LF	11,362.000	164
	3268	2008		D-GR HMA TY-B PG64-22 DOLLARS and CENTS	TON	45,040.000	165
	3268	2062		D-GR HMA TY-D PG64-22(LEVEL-UP) DOLLARS and CENTS	TON	1,614.000	166
	3268	2259		D-GR HMA TY C SAC-B PG70-22(LATEX ADD) DOLLARS and CENTS	TON	13,182.000	167

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	4050	2001		CATTLE GUARD DOLLARS and CENTS	EA	1.000	168
	6834	2001	002	PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	120.000	169
	6834	2002	002	PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	EA	4.000	170
	8251	2003	005	RE PM W/RET REQ TY I(W)4"(BRK)(100MIL) DOLLARS and CENTS	LF	7,121.000	171
	8251	2006	005	RE PM W/RET REQ TY I(W)4"(SLD)(100MIL) DOLLARS and CENTS	LF	38,281.000	172
	8251	2018	005	RE PM W/RET REQ TY I(Y)4"(SLD)(100MIL) DOLLARS and CENTS	LF	35,215.000	173
	8251	2033	005	PAVEMENT SEALER 4" DOLLARS and CENTS	LF	1,190.000	174

**** Specification Data ****

Basis of Estimate

Item	Description	Rate	Unit
166	Fert (16-8-8)	600 lb/acre**	Ton
168	Vegetative Watering	169,400 gal/acre	MG
275	Cement (New Base)(Road-Mixed) (For Type E, Gr. 4)	75 lb/CY	Ton
310	Asph Mat'l (MC-30, AE-P,or EC-30) (Flex Base)	0.3 gal/SY*	Gal
3267	Hot Mix (All Types)	115 lb/SY/in	Ton
3268	Hot Mix (All Types)	115 lb/SY/in	Ton

* Based On 50% Asphalt Residue.

** Non-Pay, for Contractor's Information Only.

Compaction Requirements for Base Courses:

(Percent Of Density As Determined By Compaction Ratio Test TEX-113-E)

ITEM	MATERIAL	COURSE	MIN DENSITY
247	Flex Base	All	100 %
275	Cement Treat.	All	95 %

Surface Treatment Data:

One Course on Subgrade or Flex Base

Asph Type AC-5, AC-10, or RC-3000
Rate 0.56 gal/SY

Project Number: NH 2013(802)

Sheet

County: WISE

Control: 0013-08-127

Highway: US 81

Aggr Type PB or Lightweight
Grade 4
Rate 1 CY/135 SY

One Course on Existing Pavement (Seal Coat)

Asph Type CRS-2 or CRS-2H
Rate 0.40 gal/SY

Aggr Type B
Grade 4
Rate 1 CY/110 SY

Note: The rates of application of asphalt and aggregate are for estimating purposes only and may be varied as directed by the Engineer.

Special Notes:

Prior to contract letting, bidders may obtain electronic earthwork information and electronic cross-sections by accessing a File Transfer Protocol (FTP) site:

To access the FTP site:

**Go to <ftp://ftp.dot.state.tx.us>
Click Page>Open FTP site in Windows Explorer
Click File>Login As**

**FTP Username: ftwdecaturr
FTP password: srkkhmqw
Access: Read-Only**

Enter the information above and click "Log On".

All files in the FTP site are subject to the License Agreement shown on the FTP site screen:

This data is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the enclosed data with appropriate plans, specifications and estimate for the project(s).

Questions may be submitted prior to letting by e-mail. Please submit questions to all persons below. The questions will be answered in the same format that they are received.

Bill Nelson, P.E.

e-mail: Bill.Nelson@txdot.gov

County: WISE

Control: 0013-08-127

Highway: US 81

Kevin Howell

e-mail: Martin.Howell@txdot.gov

A pdf electronic file, containing all answered pre-letting questions and other project related design information, will be accessible from the FTP site: (please note that the design information is for contractor information only)

Calculating, Recording and Reporting Test Data - Use appropriate TxDOT Excel templates to calculate and record all test data. These forms are available on the TxDOT website at www.dot.state.tx.us/forms/construction.htm under the "SiteManager" heading. Submit test results within 24 hours of test completion by email or CD.

Single lane closures, except as otherwise shown in the plans, will be restricted to off-peak hours as defined in the following table:

Peak Hours		Off-Peak Hours	
6 to 9 AM Monday through Friday	3 to 7 PM Monday through Friday	9AM to 3PM and 7 PM to 6 AM Monday through Friday	All day Saturday and Sunday

Work that requires closure of multiple travel lanes in the same direction, except as otherwise shown in the plans, will be performed at night between the hours of 9:00 pm and 5:00 am.

Existing storm sewers and utilities are shown from the best available information. Verify the location of all underground facilities prior to starting work.

For dimensions of R.O.W. not shown on the plans, see R.O.W. map on file at the TxDOT District Office.

Remove all existing fences within the right of way and remove and replace all existing fences within easements where such fences conflict with the work. Protect the remaining fence from damage due to slacking. Erect temporary fencing in the easement areas as necessary to secure the property. Provide at least one week notice to the property owner prior to removing or moving the fence. Restore permanent fencing to an equal or better condition.

Provide all-weather surface for temporary ingress and egress to adjacent property, as directed. Materials, labor, equipment and incidentals necessary to provide temporary ingress and egress will not be paid for directly, but will be subsidiary to the various bid items.

County: WISE

Control: 0013-08-127

Highway: US 81

Remove and dispose of roadway debris within the project limits to maintain safe use of the travel lanes, and as directed. Materials, labor, equipment and incidentals necessary to provide debris removal will not be paid for directly, but will be subsidiary to the various bid items.

Provide cleaning and sweeping of the roadway travel lanes and shoulders after snow removal activities or instances of construction traffic tracking material on the roadway as directed by the Engineer. Materials, labor, equipment and incidentals necessary to provide cleaning and sweeping will not be paid for directly, but will be subsidiary to the various bid items.

In those instances where necessary, the governing slopes indicated herein may be varied from the limits shown, to the extent approved.

On superelevated curves the shoulders shall have the same cross-slope as the pavement, unless otherwise indicated.

On superelevated curves where the grade line is in a sag or on flat grades, overlay the shoulders to the extent necessary to prevent trapping of water on the high side.

All driveway openings will be determined by the Engineer and shall conform with Texas Department of Transportation "Regulations for Access Driveways to State Highways" adopted September 1953, and revised June 2004.

Locations and lengths of all private entrances are approximate only. The actual locations, lengths, lines and grades are to be determined by the Engineer and shall conform with the regulations of The City of Decatur, Wise County and TxDOT Area Office

Take care that existing curb and curb and gutter is not discolored or damaged during construction operations. In the event of discoloration or damage, clean or repair as directed.

Remove the grass from the crown of shoulders or pavement edges by blading or other approved methods. Payment for this work will not be made directly but shall be considered subsidiary to the various items of the contract.

Locations shown for drainage structures refer to the control points of structures as follows:

- 1) Manholes, Inlets, and Junction Boxes -- Locations are at the centroid of the structure; when two structure types are specified, location is at the centroid of the top structure. Bottom structure may be positioned as required to align with top structure, storm drain pipes and other adjacent structures.
- 2) Street Inlets -- Locations are at the face of curb at a distance of $L/2$ from the end of the inlet.

- 3) Headwalls -- Locations are to the outside face of the headwall at the centerline of the pipe or box structure. For pipe headwalls with Type "P" or "C" safety end treatment, locations are on the centerline of the pipe structure at the limit of payment for pipe.

Plugging of pipes or culverts will not be paid for directly, but shall be considered subsidiary to the various bid items, unless otherwise shown on the plans.

Provide temporary drain openings at all low points or other drainage structures, as required, at the Contractor's expense.

Remove any obstructions to existing drainage due to the contractor's operations, as required, at the Contractor's expense.

Install all required concrete riprap flumes immediately following the construction of ditches in which they are to be placed. In addition, apply all erosion control measures as shown on the plans or as directed, immediately following construction of channels to their required line, grade and section.

The following standard detail sheets have been modified:

Item 5. Control of the Work

When supplementary bridge plans, shop drawings, shop details, erection drawings, working drawings, forming plans or other drawings, are required, the drawings shall be prepared and submitted on sheets 8 1/2 by 11 inches, 17 by 22 inches, or full size drawings reduced to half scale if completely legible. If, in the opinion of the Engineer, the drawings are not completely legible, they shall be prepared and submitted on sheets 22 by 34 inches, with a one and one-half inch left margin, and a one-half inch top, right, and bottom margin.

All sheets submitted shall have a title in the lower right hand corner. The title shall include the sheet index data shown on the lower right corner of the project plans, name of the structure or element or stream, sheet numbering for the shop drawings, name of the fabricator and the name of the Contractor.

Prior to contract letting, bidders may obtain a free computer diskette or a computerized transfer of files (from the Engineer's office) that contains the earthwork information in ASCII format, plain text files. If copies of the actual cross-sections are requested, in addition to, or instead of, the diskette, they will be available at the Engineers office for borrowing by copying companies for the purpose of making copies for the bidder, at the bidder's expense.

Item 7. Legal Relations and Responsibilities

Do not initiate activities in a project specific location (PSL) associated with a U.S. Army Corps of Engineers (USACE) permit 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” as defined here means materials are delivered to or from the PSL. The permit area includes all waters of the U.S. or associated wetlands affected by activities associated with this project. Special restrictions may be required for such work. The contractor shall be responsible for any and all consultations 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 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. Maintain copies of their determination(s) for review by the Department or any regulatory agency.

Document and coordinate with the USACE, if required, prior to 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.** Document both the project specific location (PSL) and its 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 is used for permanent or temporary fill (Item 132, Embankment) within a USACE permit area;
 - b. Suitable embankment (Item 132) from within the USACE permit area is used as fill within a USACE evaluated area; and,
 - c. Unsuitable excavation or excess excavation [“Waste”] (Item 110) that is disposed of at a location approved by the Engineer within a USACE evaluated area.
- (2) Contractor Materials from Areas Other than Previously Evaluated Areas.** Provide the Department with a copy of all USACE coordination or approval(s) prior to 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:

 - 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.

The total area disturbed for this project is 106 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.

Item 8. Prosecution and Progress

Working days will be computed and charged in accordance with Article 8.3.A.1 Five-Day Workweek.

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

Item 100. Preparing Right of Way

Measurement for this item shall be along the centerline of the project with the limits of measurements as shown on the plans.

Removal of existing concrete pavement shall be in accordance with Item 104.

Item 104. Removing Concrete

When associated with a structure to be removed, removal of riprap as required, approach slabs and shoulder drains are to be included in the unit price bid for Item 496, 'Removing Structures'.

Item 105. Removing Stabilized Base and Asphalt Pavement

Cement, lime, and/or lime fly-ash stabilized base material to be removed on this project shall become the property of the Contractor.

Item 110. Excavation

Cross sections for pay quantity determination of earthwork may be developed photogrammetrically.

Review proposed waste sites to determine if any site is located in a "Base Floodplain" or "Floodway" as defined by the Federal Emergency Management Agency (FEMA).

If waste material from this project is placed in a base floodplain as defined by FEMA, a permit will have to be obtained from the local community responsible for enforcing National Flood Insurance Program (NFIP) regulations. The Contractor is responsible for ensuring that the owner of the property receiving the waste has obtained the necessary permit.

Items 110, 112, and 132. Excavation, Subgrade Widening, and Embankment

Sulfate-laden subgrade material that is to be treated with either lime or cement, including material up to one foot outside the proposed treatment limits, is susceptible to sulfate heave. It has been determined that an excessive concentration of sulfate in the soils (>3,000 PPM by dry weight of the soil) exists for given areas of excavation and/or proposed treated subgrade within the project limits. The areas of moderate to high concentrations are as follows:

Moderate sulfate levels are those defined from 3,001 PPM to 7,000 PPM. Treat these soils with lime at the full 150 lb/CY rate or cement at the full 125 lb/CY rate. Do not split the rates to ensure complete reaction and mitigation of sulfate heaves. Allow the mixture to mellow for 7 days to provide for complete reaction.

High sulfate levels are not allowed within the treatment and surrounding areas as defined above.

Test soils for soluble sulfates in accordance with Test Method TEX-145 and TEX-146-E.

Treat moderate sulfate or excavate high sulfate areas identified above and other subgrade areas that may be identified during construction as having moderate to high sulfate concentrations to a depth of one foot below and laterally to one foot outside the proposed treatment limits. Treatment of the moderate level material shall be paid for under Item 260 or Item 275. Removal of the high level material shall be measured and paid for in accordance with Item 110 and replacement with suitable material shall be measured and paid for in accordance with Item 132.

Any excavated sulfate-laden material will be acceptable for use in fill areas. Do not place within previously specified section boundaries of subgrade to be treated with either lime or cement.

Off-Site Borrow Sources. In addition to meeting pertinent specification requirements, test off-site borrow sources for sulfate content. Test soils for soluble sulfates in accordance with Test Method TEX 145 and TEX-146-E and provide documentation that supports compliance with

County: WISE

Control: 0013-08-127

Highway: US 81

previously stated requirements. The Engineer will perform additional testing for sulfates of this material upon delivery to the project. Only material that is placed within one foot vertically or laterally of subgrade treatment will require testing for sulfates. Remove and replace failing material (sulfate concentrations >7,000 PPM by dry weight).

Item 132. Embankment

Provide Type B embankment material with a Plasticity Index (PI) between 15 and 25 within the top 2 feet of all embankments.

Do not provide Type B embankment material with a Plasticity Index (PI) higher than 35.

When embankment is placed as a bridge header bank, test each lift for compliance with density requirements, near the center of each travel lane at the following locations:

1. At the “beginning of bridge” or “end of bridge” station (if abutment is on retaining wall, location may be adjusted by not more than 5 feet.)
2. At 25-foot intervals for a distance of 150 feet in advance of the “beginning of bridge” station.
3. At 25-foot intervals for a distance of 150 feet after the “end of bridge” station.

Density tests shall be conducted by a department-certified independent testing laboratory. Results of tests shall be furnished to TxDOT within 24 hours after testing; a final copy of all test reports shall be signed and sealed by a Professional Engineer in the State of Texas and furnished within five (5) working days after testing. Areas which do not meet minimum density requirements shall be removed, re-compacted, and re-tested for compliance at the contractor’s entire expense. *Testing and reporting of test results will not be paid for directly, but will be considered subsidiary to this item.*

Construct embankments for bridge header banks to final subgrade elevation prior to excavation for abutment caps and placement of foundation course at approach slabs. *Payment for structural excavation and/or excavation for placement of foundation course will not be paid for directly, but will be considered subsidiary to the pertinent bid items.*

At all locations where guardrail is shown to flare, widen the embankment as necessary to accommodate the guardrail.

Item 158. Special Excavation

Special Excavation quantity is limited to that portion of the project where excavation activities encounter limestone along Business US 81 within 150 feet left or right of BU 81 centerline.

Within the area of Special Excavation where Limestone is encountered the limestone encountered shall be over excavated to the subgrade of roadbeds, concrete riprap or 15 inches below finished surface of areas covered with soil.

All other locations where limestone is encountered during site rough grading, grading of drainage ditches, trenches for culverts or conduit shall be treated as roadway excavation.

Prior to removal of special excavation the Contractor will cross section at a minimum of 50ft interval the surface of the limestone after topsoil has been stripped. Upon completion of grading to subgrade, the Contractor shall again cross section at a minimum of 50 ft spacing of the special excavation area and submit the calculated volume by average end area and supporting data to the Engineer.

Labor, equipment and materials necessary to establish special excavation volumes will not be paid for directly but, be considered subsidiary to this item.

Item 161. Compost

Place approximately 4” of compost manufactured topsoil (CMT) on all cut and fill slopes (except drainage channels where flexible channel liners are indicated), at other locations shown in the plans, and as directed.

Where “pre-blended” CMT is specified, amend suitable soil material, as determined by the Engineer, with 25% compost, by volume, to produce the compost manufactured topsoil. Place the compost manufactured topsoil in a loose layer approximately 4” thick, as shown in the plans.

Item 164. Seeding for Erosion Control

Apply seeding required between December 1 and January 31 using seed types and mixtures as shown in Item 164.2.A, Table 3. If, in the opinion of the Engineer, this does not provide an effective vegetative cover, apply "straw or hay mulch" as specified in Item 164.3.E as soon as possible. After February 1 apply warm season seeding in order to establish a permanent protective vegetative cover.

County: WISE

Control: 0013-08-127

Highway: US 81

Item 166. Fertilizer

Fertilize all areas of project to be seeded or sodded.

Item 168. Vegetative Watering

Furnish and install an approved rain gauge at the project site, as directed. Furnishing and installation of the rain gauge will not be paid for directly, but will be considered subsidiary to Item 168.

Apply vegetative watering for an establishment period of thirteen weeks following application of seed or installation of sod, at a rate of ½” of water depth per week (approximately 13,030 gallons per acre). During the first four weeks after seeding, apply watering twice per week, on non-consecutive days, each at half the weekly application rate. For the remainder of the establishment period, apply vegetative watering once per week during the months of January through June or September through December, at the weekly application rate; apply watering twice per week, on non-consecutive days during the months of July and August, each at one-half the weekly application rate.

Average weekly rainfall rates for the District are as follows:

January – 0.39”	April – 0.86”	July – 0.48”	October – 0.68”
February – 0.46”	May – 1.00”	August – 0.47”	November – 0.46”
March – 0.48”	June – 0.63”	September – 0.74”	December – 0.37”

Item 180. Wildflower Seeding

Provide wildflower seeding in addition to "seeding for erosion control" in the areas as shown in the plans. For this project, wildflower seeding shall be as follows:

"Wildflower Seeding"			
<u>Common Name</u>	<u>Botanical Name</u>	<u>Rate (lb/acre)</u>	<u>P.L.S.</u>
Indian Blanket	Gaillardia Pulchella	10	50
Texas Bluebonnet	Lupinus Texensis	30	70
Lance-Leaf Coreopsis	Coreopsis Lanceolata	10	70
Annual Phlox	Phlox drummondii	8	70
Pink Evening Primrose	Oenotheraspeciosa	3	70

Perform wildflower seeding between September 15 and October 15.

The department does not sell seed to the public, but does have a list of seed suppliers located at

County: WISE

Control: 0013-08-127

Highway: US 81

http://crossroads/org/mnt/VM/wflower2/seed_sup.htm. *An order should be placed with a supplier well before the planned sowing date to ensure seed availability.*

Seeds may be obtained from mature plants about six weeks after the last flowers fade. These should be harvested before the seed pods explode and scatter the seed. Seed may be sown at harvest or stored for future planting.

Item 247. Flexible Base

(TY A, GR 4) Furnish crushed stone, gravel, or crushed gravel aggregate conforming to the following requirements:

Gradation:

<u>Retained on Sieve Size</u>	<u>Percent (%) by Weight</u>
1-3/4 in.	0 – 5
7/8 in.	5 – 35
No. 4	40 – 75
No. 40	65 – 85

Plasticity Index (PI)	12 max., 4 min.
Liquid Limit	45 max.
Wet Ball Mill	50 max.
Wet Ball Mill, %	20 max.
Increase Passing the No. 40	

Place material in two or more equal lifts unless otherwise directed.

Do not add field sand to modify the final material to meet the requirements.

Build and maintain a 5,000 CY stockpile of approved material before and during hauling operations.

(TY E, GR 4) Use this item for the foundation course under the approach slabs and other locations shown on the plans. Furnish aggregate conforming to the following requirements:

Gradation:

<u>Retained on Sieve Size</u>	<u>Percent (%) by Weight</u>
1-3/4 in.	0 – 5
No. 4	30 – 75
No. 40	65 – 85

County: WISE

Control: 0013-08-127

Highway: US 81

Plasticity Index (PI)	15 max.
Liquid Limit	45 max.
Wet Ball Mill	50 max.
Wet Ball Mill, %	20 max.
Increase Passing the No. 40	

Place material in two or more equal lifts unless otherwise directed.

Do not add field sand to modify the final material to meet the requirements.

Cement treat in accordance with Item 275.

Item 275. Cement Treatment (Road-Mixed)

Apply cement for subgrade treatment by the “slurry placement” method.

Treat base or subgrade material with a maximum 4% cement by weight. The minimum 7-day compressive strength of treated material shall be 250 psi.

Treat flexible base for bridge approach slab foundation course with 2.4% cement by weight.

If the Contractor elects to plant-mix cement with the foundation course, mix in accordance with Articles 276.3 and 276.4.A. Place the mixture in accordance with Article 276.4.B and compact in accordance with Article 276.4.C.

Item 301. Asphalt Antistripping Agent

Furnish a liquid antistripping agent unless otherwise directed.

Item 305. Salvaging, Hauling, and Stockpiling Reclaimable Asphalt Concrete

Stockpile all rap salvaged not used for this project per the table below or as directed.

Build stockpiles between 10 and 15 feet in height with layers approximately 2 feet in depth.

Stockpile Location	Quantity
TxDOT RW US 380 & FM 730, Decatur TX	5000 +/- CY (70x240x14)
TxDOT Yard 1710 W. US 380, Decatur TX	4000 +/- CY (100x120x15)
TxDOT Stockpile RW US 81 at SH 114, Rhome TX	10060 +/- CY Remainder

Total	19060 +/- CY
-------	--------------

Item 310. Prime Coat

Provide an MC-30, AE-P or EC-30 for this Item.

Item 314. Emulsified Asphalt Treatment

Provide MS-2 for this Item. Use between a 30% - 50% asphalt residue mixed with 50% - 70% heated water added at the plant.

Item 316. Surface Treatments

PG64-22, PG58-22 or CRS-2 may be substituted for AC-10, with written approval. CRS-2 may not be used with precoated aggregates. Provide and apply CRS-2 with greater than 50% asphalt residue. Apply CRS-2 at a rate approximately 50% higher than specified for AC-10, or as directed.

Remove vegetation and blade pavement edges as directed.

Furnish aggregate meeting a Surface Aggregate Classification rating of "A" for the following roadways in this project: (list)

Provide a transverse variance rate of 10%). Provide an equal amount of asphaltic material between the wheelpaths as outside the wheelpaths.

Provide a minimum of 3 pneumatic rollers as specified under Article 316.3.C.
The asphalt application season for this project is April 1 to November 1.

Item 351: Flexible Pavement Structure Repair

1000 sy of Flexible Pavement Structure Repair has been included in this contract to be used at the discretion of the engineer. Pavement structure repair locations shall be specified during construction and approved by the engineer. Pavement structure repair shall consist of 5" TY B HMAC on ramps, shoulders and frontage roads or match existing if main line US 81.

Item 354. Planing and Texturing Pavement

Stockpile salvaged materials at TxDOT Yard located at southeast corner of US81/287 and US 380 1710 W. US 380 or as directed by the Engineer

County: WISE

Control: 0013-08-127

Highway: US 81

Item 360. Concrete Pavement

When using the Hardy Chair-Lok to support reinforcing steel, chair spacing may be increased to 1.67 SY per chair, placed in a diamond or square pattern. Do not exceed 60" longitudinal spacing.

The provisions of Article 360.6.B will not be a requirement and the pavement will not be cored.

Include the approved mix design number on each delivery ticket.

Item 361: Full-Depth Repair of Concrete Pavement

50 SY of 8" Full Depth Repair of Concrete Pavement has been included in this contract to be used at the discretion of the engineer. Pavement structure repair locations shall be specified during construction and approved by the engineer. **Item 400. Excavation and Backfill for Structures**

Class "B" bedding will be permitted in lieu of Class "C" bedding.

Item 421. Hydraulic Cement Concrete

For Class P and S Concrete Only: For concrete plants equipped with 2 aggregate bins and/or no calibrated metering system, blend manufactured and natural sand at the aggregate source only. For concrete plants equipped with a minimum of 3 bins and a calibrated metering system, blending of the separate sands on-site is permitted to meet gradation and AIR requirements.

The strength testing equipment for concrete will be capable of producing an electronic printout of the test results.

Air entrainment requirements are waived for all classes of concrete except all Class S and all Class P Concrete.

Concrete will not be rejected for low air content. Adjustment to the dosage of air entrainment will be as directed or allowed by the Engineer.

Include the approved mix design number on each delivery ticket.

Contractor personnel performing job-control (QC) testing on concrete must be ACI certified. Provide a copy of all personnel certification papers to the Engineer at the preconstruction meeting. The Engineer may require the Contractor's testers to provide the certification papers upon arrival and before testing at the job site. Furnish a hard copy of all testing equipment calibration reports at the preconstruction meeting when non-TxDOT equipment is used to test concrete. Furnish updated reports as equipment is calibrated through the project contract. The

calibration frequency will match TxDOT's and will apply for each piece of equipment as follows:

- Slump Cone - Annual
- Air Meter - Every 3 months
- Compression Tester - Annual
- Beam breaker - Annual

The compression testing equipment for concrete will be capable of producing an electronic printout of the test results.

The Engineer may allow the use of local commercial laboratories under contract to provide these services. The previous requirements are required from the Commercial Laboratory prior to any work being performed.

Item 427. Surface Finishes for Concrete

Required Note:

Provide the following surface finish for the listed elements:

Table 4: Basis of Estimate for Finish Colors (Items 427 & 446)¹

Element	Color	Specification Number ²
T551 Rails	Maple sugar	33717
Columns	Maple sugar	33717
Bent Caps	Maple sugar	33717
Abutments (all parts)	Maple sugar	33717
Prestressed concrete girders		30215
Bottom of slab overhand and slab edge	Maple sugar	33717
Concrete rail parts except outside lower 18"	Maple sugar	33717
Lower outside 18" of concrete rails		30215

- 1. Unless otherwise noted, it is the intent of these plans that all exposed surfaces of bridges, concrete traffic railing and concrete traffic barrier be given a tinted coating as shown or as directed. Such coating shall meet the applicable provisions of Item 427 or Item 446.**

County: WISE

Control: 0013-08-127

Highway: US 81

Item 432. Riprap

Provide weepholes as directed.

Provide Class B Concrete for riprap.

The quantities for riprap at the location indicated may be varied to the extent necessary to ensure proper functioning for the purpose intended.

All concrete riprap shall be 5" (.42') in thickness, unless otherwise shown in the plans, and shall be reinforced.

An 8 inch (.67') by 18 inch (1.5') toewall will be required at the exposed edge of all concrete riprap, unless otherwise directed.

Locations and lengths of riprap flumes shown on the plans are approximate. Actual lengths and locations are to be determined in the field.

All guard rail and signs shall have concrete riprap for vegetation control placed per Roadway Standard CRVC (FW)

Item 464. Reinforced Concrete Pipe

All bends and connections in pipe shall be prefabricated.

Item 466. Headwalls and Wingwalls

Do not use precast headwalls/wingwalls.

Item 502. Barricades, Signs, and Traffic Handling

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

Permanent signs may be installed when construction in an area is complete and they will not be in conflict with the traffic control plan for the remainder of the job.

Existing signs are to remain as long as they do not interfere with construction and they do not conflict with the traffic control plan.

Any sign not detailed in the plans but called for in the layout shall be as shown in the current "Standard Highway Sign Designs for Texas".

When traffic is obstructed, arrange warning devices in accordance with arrangements indicated in the latest edition of the "Texas Manual on Uniform Traffic Control Devices".

Cover or remove any work zone signs when work or condition referenced is not occurring.

Item 504. Field Office and Laboratory

Furnish the following structures for this project:

<u>Type</u>	<u>No.</u>
Field Lab (Ty. D)	1*

- * Furnish a Type D Lab if HMAC from a non TxDot Material Tested Source is used on the project.

Item 512. Portable Concrete Traffic Barrier

Traffic barrier for this item is stockpiled at the interchange of US 380 and US 287 in Wise County approximate quantities available are noted below.

Type	Location	Approx No Units	Approx LF
Slotted	US 380@US 81/287	80	2400
J Hook	US 380@US 81/287	300	9000
X	US 380@US 81/287	28	840

Class "H" Concrete furnished for this Item shall have a minimum 28 day compressive strength of 3600 PSI.

When slotted-end PCTB is used in a permanent installation, grout the joints with an approved non-shrink grout material.

Provide the hardware assemblies to join barrier sections, including barrier from stockpile. Slotted joints require a welded tie bar assembly, as detailed on the PCTB standard detail sheet.

County: WISE

Control: 0013-08-127

Highway: US 81

Low Profile PCTB requires a 1 1/4" x 2'-2" threaded rod, two (2) 1 1/4" hex nuts, and two (2) standard USS washers, grade 5, for each section. Type 2 Low Profile Concrete Barrier sections (the sloped ends) will need seven (7) 1 1/4" diameter x 30" long anchor pins per section. Lapped-end PCTB requires a 1" x 1'-4" threaded rod, two (2) 1" hex nuts, and two (2) 3" x 3" x 1/4" plate washers.

Connection hardware will remain the property of the State upon completion of the project and will not be paid for directly, but considered subsidiary to Item 512. Deliver hardware to the location specified.

Delineate all barrier in accordance with Barricade and Warning Sign (BC) Standards. Barrier delineation will not be paid for directly, but will be subsidiary to this Item.

Replace any traffic barrier which, in the opinion of the Engineer, is damaged by the traveling public to the extent it is no longer serviceable, using traffic barrier from the designated stockpile site. The Contractor will be paid to remove and replace the traffic barrier damaged by the traveling public. Return damaged traffic barrier to the stockpile site located at the interchange of US 380 and US 287 in Wise County or dispose of as directed by the Engineer.

Items 530 And 531. Intersections, Driveways and Turnouts, and Sidewalks

The furnishing and installation of the sand cushion in the proposed sidewalks, sidewalk ramps and driveways will not be paid for directly but shall be considered subsidiary to this bid item.

Item 540. Metal Beam Guard Fence

The locations and lengths of guard fence shown on the plans are approximate. Actual lengths and locations are to be determined in the field.

The tops of timber posts shall be domed. Beveled tops will not be permitted for timber or steel posts.

When holes for timber posts are drilled below bottom of post elevation, backfill the excessive depth with an acceptable sand. The furnishing and installation of the sand backfill will not be paid for directly but shall be considered subsidiary to this Item.

When guardrail posts are placed in a finished surface, backfill the top 4 inches with an asphaltic material, domed to carry water away from the posts or as shown on the plans. The furnishing and installation of the asphaltic material backfill will not be paid for directly but shall be considered subsidiary to this Item.

Item 542. Removing Metal Beam Guard Fence

Remove existing metal beam guard fence only when authorized.

Item 545. Crash Cushion Attenuators

Remove salvageable units and stockpile at TxDOT Yard located at southeast corner of US 81/287 and US 380.

Item 556. Pipe Underdrains

1000 LF of pipe underdrains has been included in this contract to be used at the discretion of the engineer. Install pipe underdrains Type 6 at locations shown on the plans or as directed.

The unit price bid per linear foot of "pipe underdrain" shall include the cost of making connections to storm drain lines.

Furnish filter material for this project conforming Section 421 Grade 3 concrete aggregate to the following gradation Table 3 (Test TEX-401-A) or equivalent as approved by the Engineer:

Percent Passing Sq. Sieve	Percent by Weight
2 in.	100
1 ½ in.	95-100
1 in.	
¾ in.	60-90
1/2 in.	25-60
3/8 in.	
No. 4	0-5

Item 585. Ride Quality for Pavement Surfaces

Mainline NB and SB use Surface Test Type B pay adjustment schedule 2 to evaluate ride quality of the travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Frontage Roads and BU 81 use Surface Test Type A pay adjustment schedule 2 to evaluate ride quality of the travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Item 1122. Temporary Erosion, Sedimentation, and Environmental Controls

The SW3P for this project shall consist of using the following items as directed:

- a. Temporary rock filter dams TY 2
- b. Temporary sediment control fence
- c. Construction exits
- d. soil retention blanket

County: WISE

Control: 0013-08-127

Highway: US 81

e. Temporary Erosion Control Logs (12" Dia)

Remove accumulated sediment and/or replace SW3P controls when the capacity has been reduced by 50% or when the depth of sediment at the control structure exceeds one foot.

Item 3267. Dense-Graded Hot-Mix Asphalt (Small Quantity)

In Table 1, the Micro-Deval abrasion test is not required.

RAP aggregate must meet the requirements of Table 1.

Provide aggregate with a Surface Aggregate Classification (SAC) value of B.

Provide a PG70-22 asphalt for the surface course.

Provide a PG64-22 asphalt for the level-up course.

Provide a PG64-22 asphalt for the concrete underlayment course.

Provide the PG70-22 asphalt with any of the following modification alternatives:

- * PG64-22 modified with SBS at the refinery
- * PG64-22 modified with SBR Latex at the Hot Mix Plant.
- * AC-10 modified with SBR Latex at the Hot Mix Plant.

When the asphalt is modified at the Hot Mix Plant, provide the PG 64-22 or AC-10 refinery certification.

The additive rate for the SBS or SBR Latex will be based upon the quantity needed blended with the asphalt to produce the required asphalt grade shown above (PG 70-22).

Grade Substitution per Table 5 is not allowed when using any of the last 2 alternatives listed above.

Furnish a CSS-1P with greater than 50% asphalt residue for the tack coat on this project.

Warm Mix Asphalt (WMA) is required for this project.

Use the following notes when using Warm Mix Asphalt (WMA):

Notify the District Pavement Design Engineer (Andrew V. Kissig, P.E., CFM; Andy.Kissig@txdot.gov) with the following information: 1) The Project's CSJ, 2) the application (Base, Surface, Shoulder Level-up...) with the corresponding lift thicknesses for those applications, and Mix Type (Type A, B, C, D...). Also provide the approximate Hot Mix tonnage used for those applications and the WMA additive process used (Evotherm DAT/G, SASOBIT, Rediset WMX, or Advera).

Use an Evotherm DAT Warm Mix Asphalt (WMA), or a SASOBIT WMA, or a Rediset WMX WMA, or an Advera WMA product additive for all mix applications. Use an approved metering device attached to the plant to measure and produce a recorded printout of the amount of WMA additive going into the mix. Delivery temperature shall be a maximum of 235° F. Delivery and roll out temperatures will be modified by the Supplier and accepted by the Engineer. All work related to WMA product additives is subsidiary to this item.

County: WISE

Control: 0013-08-127

Highway: US 81

To produce an Evotherm WMA use Evotherm DAT or Evotherm 3G. Evotherm 3G is metered into the asphalt between 0.5% and 0.7% by total asphalt weight. Evotherm DAT, a chemical solution, is metered into the asphalt between 5.0% and 7.0% by total asphalt weight.

To produce a SASOBIT WMA, the mix production facility will receive SASOBIT from the solution supplier. SASOBIT is metered into the asphalt line at a rate of 1.5% by weight of total binder content.

To produce a Rediset WMX WMA, pre-blend with the asphalt or dose into the mixing drum via the RAP belt or port. Use 1.5% or 2.0% by weight of asphalt dependent upon the mix type.

To produce an Advera WMA, pre-blend with RAP or RAS, or dose into the mixing drum via the RAP belt or port. Use between 0.05% to 0.25% by weight of Advera WMA in the hot mix dependent upon the mix type and the supplier's recommendation.

An authorized representative of the WMA product additive supplier shall be present onsite during the first day of asphalt placement.

Use the Boil Test, Test Procedure Tex-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

For Table 10, the Minimum Number of Passes required for each High-Temperature Binder Grade is reduced by 5,000 passes.

Include the approved mix design number on each delivery ticket.

Use a Mechanical Transfer Device (MTD) unless otherwise directed by the Engineer.

Shoulders, ramps, crossovers, and other areas listed on the Plan sheets or as directed by the Engineer are not subject to in-place air void determination for this project.

Ride quality is not required on this for small quantity elements of this project.

Item 3268. Dense-Graded Hot Mix Asphalt (QC/QA)

Provide a PG70-22 asphalt for the surface course.

Provide the PG70-22 asphalt with any of the following modification alternatives:

*PG64-22 modified with SBR Latex at the Hot Mix Plant.

*AC-10 modified with SBR Latex at the Hot Mix Plant.

When modified at the Hot Mix Plant, provide the PG 64-22 or AC-10 refinery certification.

Grade Substitution is not allowed when using any of the last 2 alternatives listed above.

Provide a PG64-22 asphalt for the level-up course.

Provide a PG64-22 asphalt for the concrete underlayment course.

Furnish a CSS-1P with greater than 50% asphalt residue for the tack coat on this project.

If the Contractor elects to use Warm Mix Asphalt (WMA) use the following notes.

Notify the District Pavement Engineer.

Use an Evotherm DAT Warm Mix Asphalt (WMA), a SASOBIT WMA, a Rediset WMX WMA, or an Advera WMA product additive for all mix applications. Use an approved metering device attached to the plant to measure and produce a recorded printout of the amount of WMA additive going into the mix. Delivery temperature shall be a maximum of 235° F. Delivery and roll out temperatures will be modified by the supplier and accepted by the engineer. All work related to WMA product additives is subsidiary to this item.

To produce an Evotherm WMA use Evotherm DAT or Evotherm 3G. Evotherm 3G is metered into the asphalt between 0.5% and 0.7% by total asphalt weight. Evotherm DAT, a chemical solution, is metered into the asphalt between 5.0% and 7.0% by total asphalt weight.

To produce a SASOBIT WMA, the mix production facility will receive SASOBIT from the solution supplier. SASOBIT is metered into the asphalt line at a rate of 1.5% by weight of total binder content.

To produce a Rediset WMX WMA, preblend with the asphalt or dose into the mixing drum via the RAP belt or port. Use 1.5% or 2.0% by weight of asphalt dependent upon the mix type.

To produce an Advera WMA, pre-blend with RAP or RAS, or dose into the mixing drum via the RAP belt or port. Use between 0.05% to 0.25% by weight of Advera WMA in the hot mix dependent upon the mix type and the supplier's recommendation.

An authorized representative of the WMA product additive supplier shall be present onsite during the first day of asphalt placement.

Use the boil test, test method TEX-530-C, and provide only mixes that produce zero percent (0%) stripping for design verification and during production.

Include the approved mix design number on each delivery ticket.

A Mechanical Transfer Device (MTD) will be required unless otherwise directed by the Engineer.

**Table 11A
Minimum Pavement Surface Temperatures**

High Temperature Binder Grade	Minimum Pavement Surface Temperatures in Degrees Fahrenheit	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	45	50
PG 70	55	60
PG 76	60	60
PG 76	65	70
Asphalt Rubber (A-R)	65	70

Item 4050. Cattle Guard

Furnish and install a cattle guard as detailed on the plans, at the location indicated and as directed by the Engineer.

Item 6834. Portable Changeable Message Signs

All portable changeable message signs and arrow panels are to be provided with a photoelectric device to allow for automatic dimming of operations to approximately 50% of their normal brightness when ambient light drops to approximately five foot-candles, and then increase back again for daytime operations.

Four electronic portable changeable message sign unit(s) will be required continuously during the project duration supplemented with additional portable changeable message signs supplied on a per day basis as needed. Individual or collective use of signs will be required by Engineer when deemed necessary to supplement the traffic control plan.

Each sign shall be programmed in its permanent memory the following 15 messages:

1. Exit Closed Ahead
2. Use Other Routes

Project Number: NH 2013(802)

Sheet

County: WISE

Control: 0013-08-127

Highway: US 81

3. Right Lane
4. Left Lane
5. Closed Ahead
6. Two Lane
7. Detour Ahead
8. Thru Traffic
9. Prepare To Stop
10. Merging Traffic
11. Expect 15 Minute Delay
12. Max Speed ** MPH
13. Merge Right
14. Merge Left
15. No Exit Next ** Miles

GENERAL NOTES - ROADWAY ILLUMINATION

Only materials, with approved product codes or designations, from prequalified producers are accepted on bids. The Construction Division (CST) of the Texas Department of Transportation (TxDOT) maintains the material producers list of approved producer product codes or designations. Use the following website to view this list:

http://www.dot.state.tx.us/business/producer_list.htm

Locate all luminaires, high mast poles, electrical service points, ground boxes and conduit as directed.

Electrical service points may be moved a maximum of 50 feet from the location shown in the plans, with approval. If it is necessary to move a service point more than 50 feet, recalculate the voltage drop for all related circuits.

Mast-arm poles may be moved a maximum of 15 feet along and parallel to the roadway to be illuminated. If a pole is moved more than 5 feet, the location of adjacent poles should also be revised, so as to maintain uniform spacing.

Furnish the following padlock for service cabinets and safety switch enclosures:

Texas Department of Transportation: Master Lock, Key No. 2195

Furnish one padlock for each service assembly enclosure.

Furnish one padlock for each fused disconnect switch at bridges with U/P luminaires.

Where possible, conduit runs should be straight and placed with a minimum number of bends and/or ground boxes.

If the actual length of conductor in a circuit exceeds the estimated length by more than 75 feet, recalculate the voltage drop for the circuit.

The Contractor's attention is directed to all locations where illumination circuits cross existing sign light, traffic signal, surveillance, or roadway illumination circuits owned by TxDOT the Contractor will be responsible for locating any existing circuits prior to any trenching, foundation drilling or excavation. If any existing circuits are damaged by the Contractor, splice the circuits or repair the conduit and replace the conductor as directed, to ensure proper operation of the system. Complete these temporary repairs as soon as possible after damage occurs. All labor and materials required for the temporary repairs will be at the Contractor's expense. Maintain the temporary repairs until permanent repairs are made.

Permanent repairs shall consist of the replacement of damaged or temporarily repaired conduit, conductor, ground boxes, etc., as directed, and shall be constructed in accordance with the requirements of the appropriate bid items and this project for new construction.

Permanent repairs, including the placement of ground boxes, extensive conduit runs, etc. will be measured and paid for in accordance with the appropriate bid items.

Only one permanent repair per circuit run will be considered for payment.

For access into the existing electrical service or fused disconnect switches at bridges with U/P luminaries, contact the Fort Worth District's Traffic Systems Supervisor (Traffic Signal Shop main phone number: 817-370-6505). Provide at least 72 hours of prior notification.

For modifications to an existing electrical service's branch circuit breakers, use new materials that meet the requirements of the National Electric Code (NEC), Underwriters Laboratories (UL), Canadian Standards Association (CSA), and National Electrical Manufacturer Association (NEMA) and that comply with specifications shown in ED(4)-03 and ED(5)-03.

Special Note to Item 7. Legal Relations and Responsibilities.

Electrical certification for this project will be as per Item 7 of the current Texas Standard Specifications and any special provisions to Item 7.

Item 610. Roadway Illumination Assemblies.

For both transformer and shoe-base type illumination poles, provide double-pole breakaway fuse holder as shown on the Texas Department of Transportation (TxDOT) materials producers list. Category is "Roadway Illumination and Electrical Supplies". Fuse holder is shown on list under Items 610 & 620. Provide 10 amp time delay fuses.

Furnish luminaires rated for operation at 480 volts.

Fabricate steel roadway illumination poles in accordance with TxDOT standards RIP-2011 (Roadway Illumination Poles -2011). Poles fabricated according to RIP-2011 require no shop drawings.

Alternate designs to RIP-2011 or the use of aluminum to fabricate poles will require the submission of shop drawings electronically.

For instructions on submitting shop drawings electronically go to TxDOT home page, Business with TxDOT, Bridge information, Shop drawings.

File is titled: Guide to Electronic Shop Drawing Submittal.

Transport all roadway illumination assemblies removed by the Contractor and retained by TxDOT to the TxDOT District Warehouse at 2501 SW Loop (IH 20 at McCart Street), in Fort Worth, Texas. Contact the Fort Worth District's Traffic Systems Supervisor (Traffic Signal Shop main phone number: 817-370-6505) before transporting the roadway illumination assemblies. A TxDOT inspector shall be present to see that all removed transformer bases are sufficiently destroyed to prevent their reuse – these shall become the property of the Contractor. These roadway illumination assemblies are to be removed and transported without damage to any of the assemblies. Roadway illumination assemblies will be inspected when they are unloaded at the TxDOT District Warehouse at 2501 SW Loop (IH 20 at McCart Street). Any damaged lens, luminaire housing, etc., which is not suitable for reuse will become the property of the Contractor and shall be removed immediately.

Limitations on Use of the RIP-11 Standard

The Roadway Illumination Pole (RIP-11) standard details were developed for installations in locations where the 3-second gust basic maximum wind speed is 110 mph, and where the elevation of the base of the pole is less than (i.e. not more than) 25' above the elevation of surrounding terrain, in accordance with the "AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals," 4th Edition (2001) (AASHTO Design Specifications). For poles to be installed in regions where the maximum basic wind speed exceeds 110 mph or to be mounted more than 25' above the surrounding terrain, the contractor shall provide poles meeting the following requirements:

A. Submittals. Following the electronic shop drawing submittal process (see ftp://ftp.dot.state.tx.us/pub/txdot-info/library/pubs/bus/bridge/e_submit_guide.pdf), the contractor shall submit to the Engineer, for approval, fabrication drawings and calculations for the poles. The drawings and calculations shall be sealed by a Texas registered or licensed professional engineer (P.E.).

B. Luminaire Structural Support Requirements. Lighting poles, arms, and anchor bolt assemblies shall have a 25 year design life to safely resist dead loads, ice loads and the required basic wind speeds at the location of installation in accordance with the current edition of the AASHTO Design Specifications. For transformer base poles, the fabricator shall include transformer base and connecting hardware in calculations and shop drawing submittals. All transformer bases shall have been structurally tested to resist the theoretical plastic moment capacity of the pole. Certification of the plastic moment load test and FHWA breakaway requirement test of the model of base being furnished shall be submitted with the shop drawings. Shop drawings shall show breakaway base model number, and manufacturer's name and logo. Manufacturer's shop drawings shall include

County: WISE

Control: 0013-08-127

Highway: US 81

Item 616. Performance Testing of Lighting Systems.

The Contractor shall provide thirty days' written notice to the engineer of his intent to start the test period for each service point and its related circuits.

Item 618. Conduit.

Bed all PVC conduit placed by open cut in field sand as approved.

Conduit for the ground rod at high mast poles shall be schedule 40 PVC.

Conduit bends at roadway illumination assembly foundations will not be paid for directly, but will be considered subsidiary to Item 416.

The fused disconnect switch used for underpass circuits will not be paid for directly, but will be considered subsidiary to the various bid items.

Do not use cast iron junction boxes in concrete traffic barriers and single slope traffic barriers. Use polymer concrete junction boxes instead of the cast iron junction boxes shown on standard sheets CTBI (3), CTBI (4), AND SSCB (4). Mount the junction boxes flush (+ 0", - 1/2") with concrete surface of concrete barrier.

Use materials from prequalified material producers list as shown on the Texas Department of Transportation (TxDOT) materials producers list. Category is "Roadway Illumination and Electrical Supplies."

The polymer concrete barrier box will not be paid for separately, but will be considered subsidiary to ITEM 618, "CONDUIT".

Where PVC, duct cable, and HDPE conduit 1" and larger is allowed and installed as per TxDOT standards, provide a PVC elbow in place of the galvanized rigid metal elbow required by the Electrical Detail standards. Ensure the PVC elbow is of the same schedule rating as the conduit to which it is connected.

Ensure only a flat, high tensile strength polyester fiber pull tape is used for pulling conductors through the PVC conduit system.

Items 618, 620, 624 & 628. Conduit, Electrical Conductors, Ground Boxes & Electrical Services.

Conduit and conductor from the electrical service point to the utility company pole will be measured and paid for as the size and type of conduit and conductors indicated on the plans.

County: WISE

Control: 0013-08-127

Highway: US 81

Items 624. Ground Boxes.

Upon completion of wiring work within the ground boxes that are not set in roadway pavement, the contractor shall place a 6 inch diameter washer or metallic object (with a minimum surface area of 0.15 square feet) inside each proposed ground box. Payment for this work will not be paid for directly but will be considered subsidiary to Bid Item 624. This is to assist others in locating the ground boxes more readily in the future.

Items 620, 624, & 628. Electrical Conductors, Ground Boxes & Electrical Services.

Attach an identification tag with the circuit identification stamped on the tag to the conductors for each circuit at all junction boxes and ground boxes. Identify the circuit breakers for each circuit at the service box using identification tags for each breaker. Label each circuit as shown on the illumination layouts in the plans. Tags to be plastic.

Item 628. Electrical Services.

The Engineer will make all arrangements for electrical service. Notify the Engineer, in writing, a minimum of 30 days in advance of the need for electrical service.

Contact Oncor at 214-486-5547; the desired service location by street address.

All roadway illumination circuits are 240/480V/3 wire with the roadway luminaires operating at 480V. All roadway illumination circuit breakers are 2-pole.

The concrete riprap pad at electrical service points will not be paid for directly, but will be subsidiary to Item 628.

Place a decal stating "DANGER/HIGH VOLTAGE" on the door of the service assembly enclosure. The size of the decal and lettering shall be as outlined in the current TxDOT electrical detail (ED) standard sheets.

Remove and transport all electrical transformers to the TxDOT district warehouse at 2501 S.W. Loop 820 (IH 20 at McCart St.) in Fort Worth, Texas. Contact Mr. J.D. Gore (Phone [817] 370-6942) before transporting the electrical transformers.

Mast Illumination Pole. The salvaged items are to be retained by the Fort Worth District unless otherwise stated on the plans.