

NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 4/01/2015

| | |
|----------------|---------------------|
| Control | 0005-14-080 |
| Project | IM 0201(189) |
| Highway | IH 20 |
| County | MIDLAND |

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: IM 0201(189) CONTROL: 0005-14-080
COUNTY: MIDLAND
LETTING: 04/07/2015
REFERENCE NO: 0331

PROPOSAL ADDENDUMS

- X PROPOSAL COVER
X BID INSERTS (SH. NO.: 2,3,4,5,6,7,8,9,10,11,12,13)
X GENERAL NOTES (SH. NO.: B,C,D,E,F,G,H,I,J,K,L,M,N,O)

X SPEC LIST (SH. NO.: 1,2,3)
X SPECIAL PROVISIONS:
ADDED: 008---006

DELETED:

- _ SPECIAL SPECIFICATIONS:
ADDED:

DELETED:

- _ OTHER:

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

PROPOSAL COVER

REVISED CONTRACT TO 210 WORKING DAYS

BID INSERTS

ADDED BID ITEM 351-6002

*****GENERAL NOTES*****
SHEET B: ITEM 8 DELETED STANDARD WORKWEEK NOTE
SHEET B: ITEM 8 ADDED FIVE-DAY WORKWEEK NOTE
SHEET B: ITEM 8 NOTES ADDED FOR MILESTONE WORK
SHEET C: REVISED DUE TO NOTES ADDED AS INDICATED ABOVE
SHEET D: ADDED NOTES FOR ITEM 302, ITEM 316, AND ITEM 340
SHEET E & F: REVISED DUE TO NOTES ADDED AS INDICATED ABOVE
SHEET G: ADDED NO CENTER LINE NOTE AND HAZARD TO PEDESTRIAN NOTES TO
ITEM 502
SHEET H - L: REVISED DUE TO NOTES ADDED AS INDICATED ABOVE
SHEET M: ADD ITEM 681 NOTES FOR CLARIFICATION OF TEMPORARY TRAFFIC SIGNAL
SHEET N: REVISED DUE TO NOTES ADDED AS INDICATED ABOVE
DESCRIPTION OF ABOVE CHANGES (CONTINUED)
(INCLUDING PLANS SHEET CHANGES)

SHEET 0: ADDED DUE TO NOTES ADDED AS INDICATED ABOVE

*****SPEC LIST*****

SHEET 1 OF 3: ADDED STANDARD SPECIFICATION ITEM 351

SHEET 2 OF 3: REVISED DUE TO ADDED SPECIFICATION AS INDICATED ABOVE

SHEET 3 OF 3: ADDED SPECIAL PROVISION 008-006

PLAN SHEETS

SHEET 2 (INDEX OF SHEETS): ADDED SHEETS 8G, 27A AND 36A TO INDEX

SHEET 8, 8A - 8G (GENERAL NOTES): REFER TO GENERAL NOTES CHANGES AS INDICATED ABOVE

SHEET 9 (ESTIMATE & QUANTITY): REFER TO BID INSERT CHANGE AS INDICATED ABOVE; CORRECTED SHEET BY THE ADDITION OF ITEM 104-6024; CORRECTED SHEET BY THE REMOVAL OF ITEM 464-6005; CORRECTED SHEET BY REVISED QUANTITY FOR ITEM 529-6021

SHEET 9A (ESTIMATE & QUANTITY): REFER TO BID INSERT CHANGE AS INDICATED ABOVE

SHEET 9B (ESTIMATE & QUANTITY): REFER TO BID INSERT CHANGE AS INDICATED ABOVE; CORRECTED SHEET BY REVISED DESCRIPTION AND QUANTITY OF ITEM 6079-6001

SHEET 27A (TRAFFIC CONTROL PLAN SEQUENCE OF CONSTRUCTION): ADDED SHEET PLACED ALL PHASE NARRATIVES TO THIS SHEET; REVISED SEQUENCE OF CONSTRUCTION TO ISOLATE CONSTRUCTION TIME FOR THE DETOURS IN THE NW, NE, AND SE QUADRANTS

SHEET 28 (TEMPORARY EXIT RAMP PLAN AND PROFILE PHASE 1A): REMOVED PHASE NARRATIVE

SHEET 32 (TRAFFIC CONTROL PLAN PHASE 1B): REMOVED PHASE NARRATIVE; ADDED TRAFFIC SIGNAL OPERATION DIAGRAMS, ADDED TEMPORARY SIGN FOR ENTRANCE RAMP, ADDED BOUNDARY REFERENCE FOR RESPECTIVE CONSTRUCTION SEQUENCING NOTES

SHEET 33 (TRAFFIC CONTROL PLAN PHASE 1B): ADDED BOUNDARY REFERENCE FOR RESPECTIVE CONSTRUCTION SEQUENCING NOTES

SHEET 34 (TRAFFIC CONTROL PLAN PHASE 1B): ADDED TEMPORARY SIGN FOR ENTRANCE RAMP, ADDED BOUNDARY REFERENCE FOR RESPECTIVE CONSTRUCTION SEQUENCING NOTES

SHEET 35 (TRAFFIC CONTROL PLAN PHASE 2): REMOVED PHASE NARRATIVE; ADDED BOUNDARY REFERENCE FOR RESPECTIVE CONSTRUCTION SEQUENCING NOTES

SHEET 36 (TRAFFIC CONTROL PLAN PHASE 1B): ADDED BOUNDARY REFERENCE FOR RESPECTIVE CONSTRUCTION SEQUENCING NOTES

SHEET 36A (DETOUR-PAVEMENT REPAIR DETAILS): ADDED SHEET FOR PAVEMENT REPAIR DETAILS

| | |
|---------|--------------|
| Control | 0005-14-080 |
| Project | IM 0201(189) |
| Highway | IH 20 |
| County | MIDLAND |

PROPOSAL TO THE TEXAS TRANSPORTATION COMMISSION

2014 SPECIFICATIONS WORK CONSISTING OF EXTEND ON/OFF RAMPS MIDLAND 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 210 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 | 6002 | | PREPARING ROW DOLLARS and CENTS | STA | 111.000 | 1 |
| | 104 | 6022 | | REMOVING CONC (CURB AND GUTTER) DOLLARS and CENTS | LF | 11,502.000 | 2 |
| | 104 | 6024 | | REMOVING CONC (RETAINING WALLS) DOLLARS and CENTS | SY | 34.000 | 3 |
| | 104 | 6028 | | REMOVING CONC (MISC) DOLLARS and CENTS | SY | 164.000 | 4 |
| | 106 | 6001 | | OBLITERATING ABANDONED ROAD DOLLARS and CENTS | STA | 17.000 | 5 |
| | 110 | 6001 | | EXCAVATION (ROADWAY) DOLLARS and CENTS | CY | 18,398.000 | 6 |
| | 132 | 6003 | | EMBANKMENT (FINAL)(ORD COMP)(TY B) DOLLARS and CENTS | CY | 3,839.000 | 7 |
| | 150 | 6002 | | BLADING DOLLARS and CENTS | HR | 20.000 | 8 |
| | 164 | 6036 | | DRILL SEEDING (PERM) (RURAL) (CLAY) DOLLARS and CENTS | AC | 26.000 | 9 |
| | 216 | 6001 | | PROOF ROLLING DOLLARS and CENTS | HR | 10.000 | 10 |
| | 247 | 6064 | | FL BS (CMP IN PLC)(TY A GR 4) (6") DOLLARS and CENTS | SY | 259.000 | 11 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 247 | 6389 | | FL BS(COMPL IN PLACE)(TY A GR4)(16") DOLLARS and CENTS | SY | 10,643.000 | 12 |
| | 314 | 6020 | | EMULS ASPH (PRIME)(AE-P) DOLLARS and CENTS | GAL | 859.000 | 13 |
| | 344 | 6014 | | SUPERPAVE MIXTURES SP-B PG70-22 DOLLARS and CENTS | TON | 26,678.000 | 14 |
| | 344 | 6119 | | SUPERPAVE MIXTURES SP-D SAC-A PG70-22 DOLLARS and CENTS | TON | 6,134.000 | 15 |
| | 351 | 6002 | | FLEXIBLE PAVEMENT STRUCTURE REPAIR(6") DOLLARS and CENTS | SY | 21,949.000 | 16 |
| | 354 | 6045 | | PLANE ASPH CONC PAV (2") DOLLARS and CENTS | SY | 4,588.000 | 17 |
| | 400 | 6005 | | CEM STABIL BKFL DOLLARS and CENTS | CY | 105.000 | 18 |
| | 416 | 6015 | | DRILL SHAFT (NON - REINFORCED) (12 IN) DOLLARS and CENTS | LF | 16.000 | 19 |
| | 416 | 6018 | | DRILL SHAFT (SIGN MTS) (24 IN) DOLLARS and CENTS | LF | 24.000 | 20 |
| | 416 | 6029 | | DRILL SHAFT (RDWY ILL POLE) (30 IN) DOLLARS and CENTS | LF | 208.000 | 21 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 416 | 6034 | | DRILL SHAFT (TRF SIG POLE) (48 IN) DOLLARS and CENTS | LF | 196.000 | 22 |
| | 423 | 6006 | | RETAINING WALL (STONE) DOLLARS and CENTS | SF | 24.000 | 23 |
| | 432 | 6002 | | RIPRAP (CONC)(5 IN) DOLLARS and CENTS | CY | 102.000 | 24 |
| | 432 | 6045 | | RIPRAP (MOW STRIP)(4 IN) DOLLARS and CENTS | CY | 73.000 | 25 |
| | 462 | 6006 | | CONC BOX CULV (5 FT X 2 FT) DOLLARS and CENTS | LF | 838.000 | 26 |
| | 464 | 6003 | | RC PIPE (CL III)(18 IN) DOLLARS and CENTS | LF | 48.000 | 27 |
| | 467 | 6172 | | SET (TY I)(S= 5 FT)(HW= 3 FT)(4:1) (C) DOLLARS and CENTS | EA | 12.000 | 28 |
| | 467 | 6174 | | SET (TY I)(S= 5 FT)(HW= 3 FT)(6:1) (P) DOLLARS and CENTS | EA | 12.000 | 29 |
| | 467 | 6359 | | SET (TY II) (18 IN) (RCP) (4: 1) (P) DOLLARS and CENTS | EA | 4.000 | 30 |
| | 480 | 6001 | | CLEAN EXIST CULVERTS DOLLARS and CENTS | EA | 5.000 | 31 |
| | 496 | 6004 | | REMOV STR (SET) DOLLARS and CENTS | EA | 8.000 | 32 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 496 | 6005 | | REMOV STR (WINGWALL) and DOLLARS CENTS | EA | 4.000 | 33 |
| | 496 | 6008 | | REMOV STR (BOX CULVERT) and DOLLARS CENTS | LF | 51.000 | 34 |
| | 500 | 6001 | | MOBILIZATION and DOLLARS CENTS | LS | 1.000 | 35 |
| | 502 | 6001 | | BARRICADES, SIGNS AND TRAFFIC HAN- DLING and DOLLARS CENTS | MO | 11.000 | 36 |
| | 506 | 6042 | 001 | BIODEG EROSN CONT LOGS (INSTL) (18") and DOLLARS CENTS | LF | 1,035.000 | 37 |
| | 506 | 6043 | 001 | BIODEG EROSN CONT LOGS (REMOVE) and DOLLARS CENTS | LF | 1,035.000 | 38 |
| | 508 | 6001 | | CONSTRUCTING DETOURS and DOLLARS CENTS | SY | 5,702.000 | 39 |
| | 512 | 6001 | | PORT CTB (FUR & INST)(SGL SLOPE)(TY 1) and DOLLARS CENTS | LF | 6,120.000 | 40 |
| | 512 | 6025 | | PORT CTB (MOVE)(SGL SLP)(TY 1) and DOLLARS CENTS | LF | 2,300.000 | 41 |
| | 512 | 6049 | | PORT CTB (REMOVE)(SGL SLP)(TY 1) and DOLLARS CENTS | LF | 6,120.000 | 42 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 529 | 6008 | | CONC CURB & GUTTER (TY II) DOLLARS and CENTS | LF | 12,054.000 | 43 |
| | 529 | 6021 | | CONC CURB & GUTTER (SLOTTED) DOLLARS and CENTS | LF | 342.000 | 44 |
| | 533 | 6001 | | RUMBLE STRIPS (SHOULDER) DOLLARS and CENTS | LF | 59.000 | 45 |
| | 540 | 6002 | | MTL W-BEAM GD FEN (STEEL POST) DOLLARS and CENTS | LF | 1,725.000 | 46 |
| | 540 | 6006 | | MTL BEAM GD FEN TRANS (THRIE-BEAM) DOLLARS and CENTS | EA | 3.000 | 47 |
| | 540 | 6016 | | DOWNSTREAM ANCHOR TERMINAL SEC- TION DOLLARS and CENTS | EA | 5.000 | 48 |
| | 542 | 6001 | | REMOVE METAL BEAM GUARD FENCE DOLLARS and CENTS | LF | 1,050.000 | 49 |
| | 542 | 6002 | | REMOVE TERMINAL ANCHOR SECTION DOLLARS and CENTS | EA | 3.000 | 50 |
| | 542 | 6004 | | RM MTL BM GD FENCE TRANS (THRIE- BEAM) DOLLARS and CENTS | EA | 3.000 | 51 |
| | 544 | 6001 | | GUARDRAIL END TREATMENT (INSTALL) DOLLARS and CENTS | EA | 2.000 | 52 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 545 | 6001 | | CRASH CUSH ATTEN (INSTL) DOLLARS and CENTS | EA | 4.000 | 53 |
| | 545 | 6003 | | CRASH CUSH ATTEN (MOVE & RESET) DOLLARS and CENTS | EA | 4.000 | 54 |
| | 545 | 6005 | | CRASH CUSH ATTEN (REMOVE) DOLLARS and CENTS | EA | 4.000 | 55 |
| | 610 | 6004 | | RELOCATE RD IL ASM (TRANS-BASE) DOLLARS and CENTS | EA | 10.000 | 56 |
| | 610 | 6009 | | REMOVE RD IL ASM (TRANS-BASE) DOLLARS and CENTS | EA | 4.000 | 57 |
| | 610 | 6050 | | IN RD IL AM (TY SA) 40T-8 (250W) S DOLLARS and CENTS | EA | 16.000 | 58 |
| | 618 | 6023 | | CONDT (PVC) (SCH 40) (2") DOLLARS and CENTS | LF | 6,580.000 | 59 |
| | 618 | 6029 | | CONDT (PVC) (SCH 40) (3") DOLLARS and CENTS | LF | 285.000 | 60 |
| | 618 | 6047 | | CONDT (PVC) (SCH 80) (2") (BORE) DOLLARS and CENTS | LF | 2,571.000 | 61 |
| | 618 | 6054 | | CONDT (PVC) (SCH 80) (3") (BORE) DOLLARS and CENTS | LF | 805.000 | 62 |
| | 620 | 6008 | | ELEC CONDR (NO.8) INSULATED DOLLARS and CENTS | LF | 1,352.000 | 63 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 620 | 6009 | | ELEC CONDR (NO.6) BARE DOLLARS and CENTS | LF | 14,336.000 | 64 |
| | 620 | 6010 | | ELEC CONDR (NO.6) INSULATED DOLLARS and CENTS | LF | 28,580.000 | 65 |
| | 624 | 6002 | | GROUND BOX TY A (122311)W/APRON DOLLARS and CENTS | EA | 32.000 | 66 |
| | 624 | 6008 | | GROUND BOX TY C (162911)W/APRON DOLLARS and CENTS | EA | 5.000 | 67 |
| | 628 | 6045 | | ELC SRV TY A 240/480 060(NS)SS(E)SP(O) DOLLARS and CENTS | EA | 2.000 | 68 |
| | 636 | 6002 | | ALUMINUM SIGNS (TY G) DOLLARS and CENTS | SF | 520.000 | 69 |
| | 644 | 6001 | | IN SM RD SN SUP&AM TY10BWG(1)SA(P) DOLLARS and CENTS | EA | 37.000 | 70 |
| | 644 | 6004 | | IN SM RD SN SUP&AM TY10BWG(1)SA(T) DOLLARS and CENTS | EA | 56.000 | 71 |
| | 644 | 6007 | | IN SM RD SN SUP&AM TY10BWG(1)SA(U) DOLLARS and CENTS | EA | 2.000 | 72 |
| | 644 | 6033 | | IN SM RD SN SUP&AM TYS80(1)SA(U) DOLLARS and CENTS | EA | 2.000 | 73 |
| | 644 | 6034 | | IN SM RD SN SUP&AM TYS80(1)SA(U-1EXT) DOLLARS and CENTS | EA | 3.000 | 74 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 644 | 6035 | | IN SM RD SN SUP&AM TYS80(1)SA(U-2EXT) DOLLARS and CENTS | EA | 5.000 | 75 |
| | 644 | 6037 | | IN SM RD SN SUP&AM TYS80(1)SA(U-WC) DOLLARS and CENTS | EA | 1.000 | 76 |
| | 644 | 6070 | | RELOCATE SM RD SN SUP&AM TY S80 DOLLARS and CENTS | EA | 1.000 | 77 |
| | 644 | 6076 | | REMOVE SM RD SN SUP&AM DOLLARS and CENTS | EA | 75.000 | 78 |
| | 647 | 6001 | | INSTALL LRSS (STRUCT STEEL) DOLLARS and CENTS | LB | 2,702.900 | 79 |
| | 647 | 6003 | | REMOVE LRSA DOLLARS and CENTS | EA | 4.000 | 80 |
| | 658 | 6001 | | INSTL DEL ASSM (D-SW)SZ 1(FLX)GND DOLLARS and CENTS | EA | 10.000 | 81 |
| | 658 | 6015 | | INSTL DEL ASSM (D-SW)SZ (BRF)GF1 DOLLARS and CENTS | EA | 20.000 | 82 |
| | 658 | 6018 | | INSTL DEL ASSM (D-SY)SZ 1(FLX)GND DOLLARS and CENTS | EA | 10.000 | 83 |
| | 658 | 6047 | | INSTL OM ASSM (OM-2Y)(WC)GND DOLLARS and CENTS | EA | 10.000 | 84 |
| | 662 | 6001 | | WK ZN PAV MRK NON-REMOV (W)4"(BRK) DOLLARS and CENTS | LF | 1,945.000 | 85 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 662 | 6002 | | WK ZN PAV MRK NON-REMOV (W)4"(DOT) DOLLARS and CENTS | LF | 225.000 | 86 |
| | 662 | 6004 | | WK ZN PAV MRK NON-REMOV (W)4"(SLD) DOLLARS and CENTS | LF | 44,570.000 | 87 |
| | 662 | 6012 | | WK ZN PAV MRK NON-REMOV (W)8"(SLD) DOLLARS and CENTS | LF | 9,040.000 | 88 |
| | 662 | 6016 | | WK ZN PAV MRK NON-REMOV (W)24"(SLD) DOLLARS and CENTS | LF | 526.000 | 89 |
| | 662 | 6029 | | WK ZN PAV MRK NON-REMOV(W)(WORD) DOLLARS and CENTS | EA | 22.000 | 90 |
| | 662 | 6031 | | WK ZN PAV MRK NON-REMOV(W)36"(YLD TRI) DOLLARS and CENTS | EA | 72.000 | 91 |
| | 662 | 6032 | | WK ZN PAV MRK NON-REMOV (Y)4"(BRK) DOLLARS and CENTS | LF | 430.000 | 92 |
| | 662 | 6034 | | WK ZN PAV MRK NON-REMOV (Y)4"(SLD) DOLLARS and CENTS | LF | 40,360.000 | 93 |
| | 662 | 6039 | | WK ZN PAV MRK NON-REMOV (Y)12"(SLD) DOLLARS and CENTS | LF | 2,010.000 | 94 |
| | 662 | 6080 | | WK ZN PAV MRK REMOV (W)(ARROW) DOLLARS and CENTS | EA | 22.000 | 95 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 662 | 6109 | | WK ZN PAV MRK SHT TERM (TAB)TY W DOLLARS and CENTS | EA | 2,388.000 | 96 |
| | 666 | 6006 | | REFL PAV MRK TY I (W)4"(DOT)(100MIL) DOLLARS and CENTS | LF | 225.000 | 97 |
| | 666 | 6036 | | REFL PAV MRK TY I (W)8"(SLD)(100MIL) DOLLARS and CENTS | LF | 9,840.000 | 98 |
| | 666 | 6048 | | REFL PAV MRK TY I (W)24"(SLD)(100MIL) DOLLARS and CENTS | LF | 430.000 | 99 |
| | 666 | 6102 | | REF PAV MRK TY I(W)36"(YLD TRI)(100MIL) DOLLARS and CENTS | EA | 64.000 | 100 |
| | 666 | 6141 | | REFL PAV MRK TY I (Y)12"(SLD)(100MIL) DOLLARS and CENTS | LF | 1,910.000 | 101 |
| | 666 | 6300 | | RE PM W/RET REQ TY I (W)4"(BRK)(100MIL) DOLLARS and CENTS | LF | 1,945.000 | 102 |
| | 666 | 6303 | | RE PM W/RET REQ TY I (W)4"(SLD)(100MIL) DOLLARS and CENTS | LF | 26,890.000 | 103 |
| | 666 | 6312 | | RE PM W/RET REQ TY I (Y)4"(BRK)(100MIL) DOLLARS and CENTS | LF | 430.000 | 104 |
| | 666 | 6315 | | RE PM W/RET REQ TY I (Y)4"(SLD)(100MIL) DOLLARS and CENTS | LF | 23,380.000 | 105 |
| | 668 | 6077 | | PREFAB PAV MRK TY C (W) (ARROW) DOLLARS and CENTS | EA | 22.000 | 106 |

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| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 668 | 6085 | | PREFAB PAV MRK TY C (W) (WORD) DOLLARS and CENTS | EA | 22.000 | 107 |
| | 672 | 6007 | | REFL PAV MRKR TY I-C DOLLARS and CENTS | EA | 170.000 | 108 |
| | 672 | 6009 | | REFL PAV MRKR TY II-A-A DOLLARS and CENTS | EA | 1,094.000 | 109 |
| | 672 | 6010 | | REFL PAV MRKR TY II-C-R DOLLARS and CENTS | EA | 713.000 | 110 |
| | 680 | 6003 | | INSTALL HWY TRF SIG (SYSTEM) DOLLARS and CENTS | EA | 2.000 | 111 |
| | 680 | 6004 | | REMOVING TRAFFIC SIGNALS DOLLARS and CENTS | EA | 2.000 | 112 |
| | 681 | 6001 | | TEMP TRAF SIGNALS DOLLARS and CENTS | EA | 2.000 | 113 |
| | 682 | 6001 | | VEH SIG SEC (12")LED(GRN) DOLLARS and CENTS | EA | 24.000 | 114 |
| | 682 | 6002 | | VEH SIG SEC (12")LED(GRN ARW) DOLLARS and CENTS | EA | 4.000 | 115 |
| | 682 | 6003 | | VEH SIG SEC (12")LED(YEL) DOLLARS and CENTS | EA | 24.000 | 116 |
| | 682 | 6004 | | VEH SIG SEC (12")LED(YEL ARW) DOLLARS and CENTS | EA | 12.000 | 117 |

| ALT | ITEM-CODE | | | UNIT BID PRICE ONLY. WRITTEN IN WORDS | UNIT | APPROX QUANTITIES | DEPT USE ONLY |
|-----|------------|--------------|-------------|--|------|----------------------|---------------------|
| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 682 | 6005 | | VEH SIG SEC (12")LED(RED) DOLLARS and CENTS | EA | 24.000 | 118 |
| | 682 | 6006 | | VEH SIG SEC (12")LED(RED ARW) DOLLARS and CENTS | EA | 8.000 | 119 |
| | 682 | 6029 | | BACK PLATE (12")(3 SEC)ALUM DOLLARS and CENTS | EA | 32.000 | 120 |
| | 684 | 6014 | | TRF SIG CBL (TY A)(12 AWG)(9 CONDR) DOLLARS and CENTS | LF | 2,310.000 | 121 |
| | 684 | 6030 | | TRF SIG CBL (TY A)(14 AWG)(4 CONDR) DOLLARS and CENTS | LF | 1,465.000 | 122 |
| | 686 | 6055 | | INS TRF SIG PL AM(S)1 ARM(50')LUM DOLLARS and CENTS | EA | 5.000 | 123 |
| | 686 | 6059 | | INS TRF SIG PL AM(S)1 ARM(55')LUM DOLLARS and CENTS | EA | 2.000 | 124 |
| | 686 | 6063 | | INS TRF SIG PL AM(S)1 ARM(60')LUM DOLLARS and CENTS | EA | 1.000 | 125 |
| | 760 | 6001 | | DITCH CLEANING AND RESHAPING (FOOT) DOLLARS and CENTS | LF | 1,240.000 | 126 |
| | 6001 | 6002 | | PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS | EA | 2.000 | 127 |
| | 6002 | 6003 | | VIVDS SET-UP SYSTEM DOLLARS and CENTS | EA | 2.000 | 128 |

| ALT | ITEM-CODE | | | UNIT BID PRICE ONLY. WRITTEN IN WORDS | UNIT | APPROX QUANTITIES | DEPT USE ONLY |
|-----|------------|--------------|-------------|---|------|----------------------|---------------------|
| | ITEM NO | DESC CODE | S.P. NO. | | | | |
| | 6002 | 6005 | | VIVDS COMMUNICATION CABLE (COAXIAL) DOLLARS and CENTS | LF | 2,835.000 | 129 |
| | 6055 | 6001 | | TMSP RADAR SPEED CONTROL MONITOR DOLLARS and CENTS | EA | 6.000 | 130 |
| | 6058 | 6001 | | BBU SYSTEM (EXTERNAL BATT CABINET) DOLLARS and CENTS | EA | 2.000 | 131 |
| | 6079 | 6001 | | AUTO PORT SMRT TRF MONITOR SYS DOLLARS and CENTS | DAY | 600.000 | 132 |
| | 6083 | 6001 | | VIDEO IMAGING AND RAD VEH DETECTION SYS DOLLARS and CENTS | EA | 8.000 | 133 |
| | 6084 | 6001 | | MODIFY EXISTING ELECTRICAL SERVICE DOLLARS and CENTS | EA | 1.000 | 134 |

Material Specification Information

Grading Requirements

| <u>Item</u> | <u>Description</u> | <u>Grading Requirements</u> | | | | <u>Soil</u> | | <u>Wet</u> |
|-------------|--------------------|----------------------------------|-------|-------|-------|------------------|-------------|-------------|
| | | <u>Percent Retained – Sieves</u> | | | | <u>Constants</u> | | <u>Ball</u> |
| | | 1-3/4" | 7/8" | 3/8" | #40 | L.L. | P.I. | Mill |
| | | | | | | <u>Max.</u> | <u>Max.</u> | <u>Max.</u> |
| 247 | Type A GR 4 | 0-3 | 10-35 | 20-55 | 65-85 | 40 | 12 | 45 |

The maximum increase in material passing the number 40 sieve resulting from the wet ball mill test shall not exceed 20%.

Clean all proposed structures of silt and debris by the completion of the project.

Item 5: Control of the Work

Direct attention to the Special Provision for utilities on this project.

For this project establish a true and correct alignment with a transit or by other approved methods.

The existing alignment is the control for the contractor staking. Establish reference points for the control prior to removing the existing surface.

Use Method C for construction surveying.

In the event the finished surface does not conform to the typical sections or does not ride to the satisfaction of the Engineer, rework the unsatisfactory area to the limits necessary and place construction stakes at closer intervals as directed. Provide the staking, personnel and equipment necessary to attain a satisfactory riding surface.

In curves and superelevation sections, place construction stakes at intervals of 50 feet along the centerline and at the crownline and quarter points of the typical sections. In the event a satisfactory riding surface cannot be constructed, place additional staking as directed.

Item 7: Legal Relations and Responsibilities

Restrict storage of equipment and materials to approved areas. The Engineer will not approve storage in any TxDOT yard.

Properly dispose of any waste generated from servicing equipment on the project.

If access to the project is required through a new or unapproved driveway (i.e. material source, stockpile location, field office, etc.), obtain an approved "Permit to Construct Access Driveway Facilities on Highway Right of Way" (TxDOT Form 1058) before beginning any construction operations.

Direct attention to the presence of existing utilities (public, private and TxDOT) throughout the project. Prior to any excavation, investigate to determine utility locations within the project right-of-way, and contact TxDOT Odessa Traffic Operations Shop at 432-498-4682, to investigate the location of any TxDOT utility. Exercise caution when excavating in areas where investigations have determined that utilities exist.

Item 8: Prosecution and Progress

The following portions of the plans may affect the contractor's planned construction sequencing. Direct attention to the appropriate plan sheet or standard sheet.

- Traffic Control Plan.
- Storm Water Pollution Prevention Plan.
- Environmental Permit, Issues and Commitments (EPIC).

Maintain ingress and egress to side streets and private property at all times.

Maintain ingress and egress to the frontage roads at all times.

Work sequence shall begin with installation of Item 628 "Electrical Services". This will allow TxDOT time to coordinate with and provide lead-time for power utility companies during the establishment of proposed electrical service.

Working days will be computed and charged in accordance with Article 8. 3.1.1. "Five-Day Workweek."

Direct attention to the special provision for Milestone work for this project and to the following:

- The road-user cost liquidated damages for Milestone 1 is \$ 2,440.00 per day.
- The road-user cost liquidated damages for Milestone 2 is \$ 2,202.00 per day.
- The road-user cost liquidated damages for Milestone 3 is \$ 3,921.00 per day.

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Substantially complete Milestone 1 in thirty-nine (39) working days.
Substantially complete Milestone 2 in forty-two (42) working days.
Substantially complete Milestone 3 in forty-four (44) working days.

The time charges for Milestone 1 will begin upon November 16, 2015.
The time charges for Milestone 1 will end upon January 13, 2016.

The time charges for Milestone 2 will begin upon January 15, 2016.
The time charges for Milestone 2 will end upon March 16, 2016.

The time charges for Milestone 3 will begin upon May 26, 2016.
The time charges for Milestone 3 will end upon July 29, 2016.

Failure to substantially complete the work for either of the milestones within the established number of respective working days will result in the assessment of disincentives using the daily road-user cost liquidated damages as shown above. Disincentive charge(s) will be based on the individual and separate milestone(s.)

Item 100: Preparing Right of Way

It is the intent on the plans to prepare only that portion of the right-of-way necessary for construction. Do not disturb natural vegetation and trees wherever possible.

Item 110: Excavation

In all excavated areas, broom the existing base or subgrade to remove any loose material. This work is considered subsidiary to this Item.

Before excavation and embankment operations begin, windrow all topsoil (approx. 4 inches) to be reused on side slopes or behind the proposed curb and gutter. This work is subsidiary to Item 110, "Excavation" and Item 132, "Embankment".

Start excavation when a mix design for hot mix asphalt type "SP-B" has been accepted.

Item 132: Embankment

For all material with a plasticity index of less than 20, use test method TEX-113-E in lieu of test method TEX-114-E for determining the percent of density.

Material quality test requirements will be waived for material excavated from the R.O.W. on this project and utilized in embankment.

Shoulder up at night where the proposed ramps connect onto the existing frontage roads.

Item 164: Seeding for Erosion Control

Disk areas to be seeded to a depth of four inches (4”) to allow good contact between seeds and the soil. In all areas to be drill seeded, use a pasture or rangeland type seed drill. Use separate boxes on the drill to apply the fertilizer and the seed.

Before planting operations begin, furnish seed tags from the seed supplier. These tags must show the percent purity, percent germination, and the date the seed was harvested. Submit these tags to the district vegetation manager for verification of appropriate pounds P.L.S./acre rates.

Uniformly distribute the seed as herein described.

Seed Mix:

| Species | Variety* | Lbs. P.L.S./AC** |
|------------------------|----------|------------------|
| Bouteloua Gracilis | Hachita | 1.00 |
| Blue Grama | | |
| Bouteloua Curtipendula | Premier | 2.25 |
| Sideoats Grama | | |
| Sporobolus Cryptandrum | | 0.34 |
| Sand Dropseed | | |
| Eragrostis Trichodes | | 2.00 |
| Sand Lovegrass | | |
| ***Triticum Aestivum | | 45.00 |
| Red Winter Wheat | | |

*** If seeding is performed between October 1st And February 28th, include red Winter wheat in the seeding.

**Lbs. P.L.S./Ac. = Pounds of pure live seed per acre

If a grass variety is not available, submit an available substitution to the Engineer for approval. Permission for substitution will only be granted after the Engineer is satisfied that the recommended varieties are not available. Deliver all fertilizer in bags or containers clearly labeled showing the analysis. The preferred analysis is 18-3-4. Apply the fertilizer at a rate which will not be less than 100 pounds of nitrogen per acre. Apply fertilizer in conjunction with seeding.

Item 247: Flexible Base

Maintain moisture during compaction as directed by the Engineer. Determine the moisture content of the material in accordance with TEX-115-E or TEX-103-E as directed by the Engineer.

Item 302: Aggregates for Surface Treatments

Flakiness index for aggregates will not be required on this project.

Coat aggregate with 1.0 percent by weight of residual bitumen.

Use an unmodified asphalt with a minimum performance grade of 64-16 (PG 64-16) or better for aggregate pre-coating.

Item 316: Seal Coat

Apply 1 surface treatment.

Furnish class “B” aggregate for the surface course.

Do not apply asphalt cement between October 1st and May 1st unless authorized in writing.

Rates are shown in the plans.

Item 340: Dense-Graded Hot-Mix Asphalt (Small Quantity)

Hot mix for pavement repair will be as directed by the Engineer.

Item 344: Performance-Designed Mixtures

Binder:

Provide a binder that has a performance grade of 70 -22 (PG 70 -22) for the “SP-B and SP-D” Mix.

Aggregate Quality:

Furnish Class “A” aggregate for the Type “SP-D” Mix.

Furnish aggregates that meet SAC requirements for the shoulders and/or ramps.

Magnesium sulfate soundness loss will not be greater than 20 percent when Class “A” aggregate is required.

Mixture Design:

Design a mixture with a gradation that has stone on stone contact and passes below the reference zone.

Test method Tex-530-C (Boil Test) will not be required.

Placement:

Semi-trailer type vehicles are specifically prohibited from dumping directly into the finishing machine for the finished surface. This type of haul truck will be allowed to unload into the finishing machine if the trailer is equipped with an auger slatted chain or another approved conveyor.

Place mixture when the roadway surface temperature is equal to or higher than the temperatures listed in table 1 (shown below), unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. Unless otherwise shown on the plans, place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1
Minimum Pavement Surface Temperatures

| Specification Item Number | High Temperature Binder Grade | Minimum Pavement Surface Temperatures In Degrees Fahrenheit | |
|---------------------------|-------------------------------|---|--|
| | | Subsurface Layers or Night Paving Operations | Surface Layers Placed In Daylight Operations |
| Items 340, 341 & 344 | PG 64 | 45 | 50 |
| | PG 70 | 55 | 60 |
| | PG 76 | 60 | 60 |
| Items 342 and 346 | PG 76 | 65 | 70 |
| | | | |

Item 354: Planing and Texturing Pavement

Unused planed material will be the Contractors property. Dispose of this material in accordance with applicable federal, state, and local regulations.

Variations in depth of +/- 1/2 inch are subsidiary to this Item.

Item 400: Excavation and Backfill for Structures

Aggregate for cement stabilized backfill will be an approved material.

Item 421: Hydraulic Cement Concrete

Concrete trucks shall be wasted or washed out in locations approved by the project Engineer. The locations shall be protected by a berm sufficient to contain all waste and wash water. Wash water shall not be allowed to enter any storm drainage system or waterway.

Furnish disposable 4" cylinder molds and caps that meet testing tolerances.

The Engineer will provide strength testing equipment for acceptance testing.

Within seven (7) days after concrete has been placed for foundations for traffic signals, roadway illumination assemblies, or high mast illumination assemblies, provide a rub finish for exposed surfaces in accordance with Item 427, Surface Finishes For Concrete, Special Surface Finishes.

Furnish Type II or IP Cement.

All plants and trucks will be inspected and approved by the Engineer in lieu of the NRMCA or non-department Engineer sealed certifications. The criteria and frequency of the Engineer approval of plants and trucks is the same used for NRMCA certification.

Item 432: Riprap

Use approved expansion joint material and place between the proposed riprap and curb and gutter.

Reinforce all riprap on this project with no. 3 bars spaced 12 inches O.C.B.W. or No. 4 bars spaced at 18 inches O.C.B.W.

Broom finish all riprap on this project unless otherwise directed.

Item 464: Reinforced Concrete Pipe

At locations where existing culverts are cut, use Class "A" concrete to patch the areas at the joint between the new construction and the existing structure.

Item 467: Safety End Treatment

Provide shop drawings for pipe runners.

Item 502: Barricades, Signs, and Traffic Handling

Stop equipment for traffic when crossing any traffic lanes. Furnish flaggers to warn equipment operators of approaching traffic, unless otherwise directed.

Relocate or remove temporary signs as necessary. This work is considered subsidiary to various bid Items.

Use an advanced warning flashing arrow panel for the closing of traffic lanes. Provide one standby unit in good working condition at the job site ready for immediate use.

Keep all barricades and construction signs up and in place until partial acceptance is complete. Maintain "No Center Line", "Do Not Pass" and "Pass with Care" signs until the permanent lane markings have been placed and accepted.

Place orange fencing around sidewalk, wheelchair ramps and other pedestrian areas that pose a hazard to pedestrian traffic as directed.

Use shoulder drop-off (CW8-9A) signs during construction when shoulder drop-off conditions are 3 inches or greater or as directed. Placement shall be in accordance with the "Texas Manual on Uniform Traffic Control Devices".

This project has a regulatory work zone speed reduction within the project limits. The work zone speed limit is reduced from 75 mph to 55 mph on mainlanes and from 55 mph to 45 mph on frontage roads. Placement of speed reduction zone signs shall comply with BC(3)-14. Speed resumption sign(s) is required at the end of a speed reduction zone. Place chevrons, at a minimum, on every other drum used for outsides of curves, merging tapers and shifting tapers.

Vertical panels shall be self righting.

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 "Safety Contingency" is not intended to be used in lieu of bid Items established by the contract.

Item 506: Temporary Erosion, Sedimentation, and Environmental Controls

The total disturbed area for this project is 43.993 acres. The disturbed area in this project, all project locations in the contract, and 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 any required authorization from the TCEQ for any Contractor PSLs for construction support activities on or off row. When the total area disturbed for all projects 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 (to the appropriate MS4 operator when on an Off-State System Route).

Upon acceptance of the project, all SWP3 devices will become property of the state and maintenance responsibility is transferred to the state until final stabilization is attained.

Item 529: Concrete Curb, Gutter, and Combined Curb and Gutter

Use and place approved expansion joint material between the existing curb and the proposed curb and at least every 100 feet in the proposed curb sections.

Item 585: Ride Quality For Pavement Surfaces

Use surface test Type "A" to evaluate ride quality of travel lanes in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Item 610: Roadway Illumination Assemblies

Changes in the locations of poles, conduit, pull boxes, or other items as shown on the plans may be made in those instances deemed necessary, or when requested by the Contractor and approved.

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 the ASTM designations for all materials to be used.

Item 618: Conduit

Place a single continuous piece of warning tape in accordance with this Item along the entire length of each underground conduit installation. Locate warning tape approximately twelve inches above conduit as indication that a buried electrical line exists below the tape. Cement stabilized backfilled conduit is exempt from this requirement. Comply with warning tape requirements for any installation of buried conduit, including portions of conduit located outside of cement stabilized backfill.

When trenched conduit is proposed beneath roadways under construction, install conduit after grading operations have been completed and before any surfacing begins at that location.

When shown on the plans as bored conduit, install conduit by an approved directional boring method.

Maintain a minimum 24" depth from finish grade to top of conduit for conduit proposed beneath pavement.

Use an approved ditching method. Place and backfill conduit proposed beneath existing pavement in accordance with the section shown in the plans. Schedule and complete work so that all lanes open to traffic at night.

For conduit raceways that are intended to remain empty or unused, extend the lower end of conduit from the face of the foundation to a minimum of 1' beyond the edge of the foundation or the riprap apron, whichever is farthest, and use conduit cap fittings for both ends of conduit. Do not glue caps or use duct tape when capping ends of conduit raceways that are intended to remain empty. Prevent dirt and debris from entering raceways during construction by temporarily capping both ends of open raceways. Other than conduit raceways that are intended to remain unused, fit each exposed end of raceways with a bushing. Where steel raceway is used, install a ground-type bushing and connect the bushing and ground rod with a bonding jumper.

Item 620: Electrical Conductors

In accordance with ED(3), electrical details-conductors, identify the conductors of each branch circuit on this project with permanent non-metallic tags at every accessible location. Fasten each tag to the conductors with two plastic straps. Match tag numbers for branch circuits with circuit numbers as shown on the plans.

Perform electrical work as required by Item 7.19 of the current standard specification book and any special provisions to Item 7.

Do not exceed four hundred and fifty feet (450') between ground boxes where conduit and conductor is used.

All conductor removed on project will become property of the Contractor. Contractor is responsible for proper disposal of conductor.

Item 628: Electrical Services

Initiate and complete the construction of all electrical services at the earliest possible time to facilitate coordination with and lead-time for power utility companies in the establishment of proposed electrical services.

Before construction or installation of any electrical service(s) on this project, contact TxDOT Odessa District Traffic Operations at (432) 498-4690 to facilitate coordination with the appropriate energy company or companies.

Permanently mark the physical address of any proposed electrical service on the respective meter base lid. Establish the physical location of the proposed electrical service to enable the Engineer to obtain and provide the respective physical address. Use one of two methods for permanent marking. For the preferred method of marking, use an approved die-stamp, with a minimum 1/2" height of alpha-numeric characters and stamp physical address on meter base lid. After stamping, apply coating of zinc-rich paint to the stamped area. Do not damage meter base. Replace meter base if determined by the Engineer as damaged or unacceptable. No additional compensation will be made for replacement of meter bases in the event that an unacceptable determination is made. When approved, use an alternate method of marking by providing a brass or aluminum plate tag with the physical address embossed by a machine-stamp process. Affix this tag to the meter base by a method approved by the Engineer. Provide a sample of a stamped plate tag for approval of this alternate method. Whether using the preferred or alternate method, produce a permanent and legible marking on the meter base lid before initiation of electrical service. Materials, labor, tools, equipment and incidentals necessary to complete this work will be considered as subsidiary to Item 628, electrical services.

Service enclosures and photocells from pre-approved sources will not be subject to the catalog cut sheet requirements of electrical detail standards. Notify the Engineer when pre-approved service enclosures and/or photocells will be supplied, and provide written documentation of manufacturer, brand, type, and model of service enclosure to be used prior to beginning any electrical service construction.

For incidental material and parts necessary for construction of electrical services, including the service entrance weatherhead, rigid metal conduit (RMC) and PVC conduit, conduit fittings, service conductors, circuit breakers, ground rods and clamps, grounding bushing (s), and mounting hardware including straps and channel brackets for conduit support, furnish products and/or materials that comply with the plans and specifications. Prior to construction of any electrical service, submit to the Engineer respective catalog cut sheets for incidental materials and parts. Electrical services constructed of materials or parts which do not comply with the plans and specifications will be cause for rejection of a portion or all of the work.

Use sixteen (16) inch diameter foundations with 4 ~ #5 bars and a #2 spiral or eighteen (18) inch diameter foundations with 4 ~ #6 bars and a #2 spiral for electrical services. Foundation lengths shall be as shown in the plans. Anchor bolts for either foundation shall be ¾" x 18" x 4".

Photocell shall face north when practicable.

Item 644: Small Roadside Sign Supports and Assemblies

All new sign supports for stop and yield signs will have a 12" red strip of Type C high specific intensity reflective tape. Place the top of the tape 4' above the edge of the roadway. This work will not be paid for directly and will be subsidiary to the pertinent bid Item.

For standard small sign details and dimensions, refer to the "Standard Highway Sign Designs For Texas (SHSD)"; a supplement to the Texas Manual On Uniform Traffic Control Devices (TMUTCD)".

Item 662: Work Zone Pavement Markings

Materials used for non-removable work zone pavement markings will be paint and beads or other approved materials.

Item 680: Installation of Highway Traffic Signals

Wire signal installations to operate in accordance with the phase diagrams shown in the plans. Set time intervals as directed.

Provide an approved technician who is available at all times by an on-call basis for maintenance of any installed signal equipment during the period of time in which installed signals are operating, including the test period for this project.

Provide a minimum length of 24" for each signal cable in each pull box and signal pole. All conductors are to be continuous without splices between terminals.

Remove existing foundations which are to be abandoned a minimum of one foot (1') below subgrade or two feet (2') below natural ground. This work is considered subsidiary to Item 680, "Installation of Highway Traffic Signals".

When D3-1 signs are required, provide one piece 0.080" (80 mil) thick aluminum alloy sheet sign blank with Type C (High Specific Density) green sign background and Type C (High Specific Density) white letters, border, and/or symbols in accordance with the details shown on the plans.

Initially operate traffic signals at new locations in flash mode until such time as is approved so that phase sequencing may be initiated.

Replace any LEDS that fail during the thirty (30) day test period in a timely manner. Equipment and incidentals necessary for replacement of failed LEDS are considered subsidiary to the various bid Items and will not be paid for directly.

Changes in the locations of poles, conduit, pull boxes, or other items as shown on the plans may be made in those instances deemed necessary, or when requested by the Contractor and approved.

Provide and install signs where required, as shown in the plans. Sign blanks shall be fabricated in accordance with the specifications and in conformance with the Texas "Manual on Uniform Traffic Control Devices", latest edition, and any approved changes thereto.

Supply a TS-2 Type 1 traffic signal controller assembly, verify the controller has ethernet capability, an internal embedded web page (web server) and is I.P. addressable. Provide the controller with the latest firmware release.

All conductor removed during construction shall be the property of the Contractor and is to be disposed of properly.

Item 681: Temporary Traffic Signals

For this project, the proposed traffic signal is to be used in the traffic control for respective construction phases as shown in the plans.

Materials and incidentals required to operate the traffic signal during the temporary construction phases will be subsidiary to Item 681.

Materials and incidentals required to switch from the temporary traffic signal phase to the proposed signal operation will be subsidiary to Item 681.

Item 684: Traffic Signal Cables

Attach permanent non-metallic tags to each signal cable in the access compartment of each signal pole and inside the traffic signal controller cabinet. Conductor (s) and/or cable (s) which connects signal heads to the terminal block will be tagged to indicate which specific signal head is being served. Signal cable at the traffic signal controller cabinet will be tagged to identify separate signal phases. Material, labor, tools, equipment, and incidentals are necessary to perform this work are subsidiary to the various bid Items.

Item 686: Traffic Signal Pole Assemblies (Steel)

Salvage all illumination and traffic signal poles and components. Deliver to:
Odessa Traffic Signal Shop at: 3901 E. Hwy 80, Odessa, TX 79761.

Item 6083: Video Imaging and Radar Vehicle Detection System

Supply Iteris VIVDS/Radar Vehicle Detection cameras, mounting hardware, processors, edge connect module, color monitor, BNC to RCA cable for color monitor, cables for cameras, and suppressors, as well as any components needed to make the system functional. Verify the processors have front panel including video connections, a USB port for optical mouse, CAT 5 extension module, and 4 manual call switches.

The VIVDS processor shall be equipped with a NEMA TS2 Type 1 detector interface. Logic levels shall be compatible with NEMA TS2. Disconnecting and reconnecting of video output cable from one output port to another as a method of switching video monitoring will not be allowed. A toggle switch or multiple monitors shall be required to provide an acceptable method of switching video outputs.

Item 6002: Video Imaging Vehicle Detection System

The VIVDS will be tested in a typical intersection application.

VIVDS/Radar detection cameras shall be installed directly to the mast arm in accordance with the details shown in the plans and shall be capable of monitoring 3 to 4 lanes of oncoming traffic utilizing detection zones that accommodate the initial 200 feet of approaching traffic. Detection zone sizes will simulate the operation of a 6' x 6' and a 6' x 40' inductive loop.

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The Contractor shall provide ample personnel, equipment and any necessary incidentals to perform testing for detection accuracy, count and flow rate accuracy, speed accuracy, occupancy accuracy and classification accuracy of the VIVDS system in accordance with this Item and as directed by the Engineer.

Install all the following equipment provided by TxDOT and purchased by State Force Account:

Video Imaging Vehicle Detection System

2-ENCOM Radios

2-Flat Panel Antennas

2-Hardened Switches

Item 6084: Modifying Existing Electrical Services

For incidental material and parts necessary for construction of electrical services, including the service entrance weatherhead, rigid metal conduit (RMC) and PVC conduit, conduit fittings, service conductors, circuit breakers, ground rods and clamps, grounding bushing (s), and mounting hardware including straps and channel brackets for conduit support, furnish products and/or materials that comply with the plans and specifications. Prior to construction of any electrical service, submit to the Engineer respective catalog cut sheets for incidental materials and parts. Electrical services constructed of materials or parts which do not comply with the plans and specifications will be cause for rejection of a portion or all of the work.

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PROJECT : IM 0201(189)
HIGHWAY : IH 20
COUNTY : MIDLAND

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 100 PREPARING RIGHT OF WAY
ITEM 104 REMOVING CONCRETE
ITEM 106 OBLITERATING ABANDONED ROAD
ITEM 110 EXCAVATION (132)
ITEM 132 EMBANKMENT (100)(204)(210)(216)(400)
ITEM 150 BLADING
ITEM 164 SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 216 PROOF ROLLING (210)
ITEM 247 FLEXIBLE BASE (105)(204)(210)(216)(520)
ITEM 314 EMULSIFIED ASPHALT TREATMENT (204)(300)
ITEM 344 SUPERPAVE MIXTURES (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 354 PLANING AND TEXTURING PAVEMENT
ITEM 400 EXCAVATION AND BACKFILL FOR STRUCTURES (132)(401)(420)
(421)
ITEM 416 DRILLED SHAFT FOUNDATIONS (420)(421)(440)(448)
ITEM 423 RETAINING WALLS (110)(132)(216)(400)(416)(420)(421)(424)
(440)(445)
ITEM 432 RIPRAP (247)(420)(421)(431)(440)
ITEM 462 CONCRETE BOX CULVERTS AND DRAINS (400)(420)(421)(424)
(440)(464)
ITEM 464 REINFORCED CONCRETE PIPE (400)(402)(403)(467)(476)
ITEM 467 SAFETY END TREATMENT (400)(420)(421)(430)(432)(440)(445)
(460)(464)
ITEM 480 CLEANING EXISTING CULVERTS
ITEM 496 REMOVING STRUCTURES (430)
ITEM 500 MOBILIZATION
ITEM 502 BARRICADES, SIGNS, AND TRAFFIC HANDLING

ITEM 506 TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS (161)(432)(556)

ITEM 508 CONSTRUCTING DETOURS

ITEM 512 PORTABLE CONCRETE TRAFFIC BARRIER (420)(421)(424)(440)(442)

ITEM 529 CONCRETE CURB, GUTTER, AND COMBINED CURB AND GUTTER (360)(420)(421)(440)

ITEM 533 MILLED RUMBLE STRIPS

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 610 ROADWAY ILLUMINATION ASSEMBLIES (421)(441)(442)(445)(446)(449)(616)(620)

ITEM 618 CONDUIT (400)(445)(622)

ITEM 620 ELECTRICAL CONDUCTORS

ITEM 624 GROUND BOXES (420)(421)(432)(440)(618)(620)

ITEM 628 ELECTRICAL SERVICES (441)(445)(449)(618)(620)(627)(656)

ITEM 636 SIGNS (643)

ITEM 644 SMALL ROADSIDE SIGN ASSEMBLIES (421)(440)(441)(442)(445)(643)

ITEM 647 LARGE ROADSIDE SIGN SUPPORTS AND ASSEMBLIES (421)(440)(441)(442)(445)(643)

ITEM 658 DELINEATOR AND OBJECT MARKER ASSEMBLIES (445)

ITEM 662 WORK ZONE PAVEMENT MARKINGS (666)(668)(672)(677)

ITEM 666 RETROREFLECTORIZED PAVEMENT MARKINGS (316)(318)(662)(677)(678)

ITEM 668 PREFABRICATED PAVEMENT MARKINGS

ITEM 672 RAISED PAVEMENT MARKERS (677)(678)

ITEM 680 HIGHWAY TRAFFIC SIGNALS (610)(625)(627)(634)(636)(656)

ITEM 681 TEMPORARY TRAFFIC SIGNALS (416)(610)(618)(620)(621)(622)(624)(625)(627)(628)(636)(644)(656)(680)(682)(684)(686)(687)(688)(690)

ITEM 682 VEHICLE AND PEDESTRIAN SIGNAL HEADS

ITEM 684 TRAFFIC SIGNAL CABLES

ITEM 686 TRAFFIC SIGNAL POLE ASSEMBLIES (STEEL)

ITEM 760 CLEANING AND RESHAPING DITCHES

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 REQUIREMENTS FOR AFFIRMATIVE ACTION TO
 ENSURE EQUAL EMPLOYMENT OPPORTUNITY" (000---004)

SPECIAL PROVISION "STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY

CONSTRUCTION CONTRACT" (000---005)
SPECIAL PROVISION "ON-THE-JOB TRAINING PROGRAM" (000---006)
SPECIAL PROVISION "DISADVANTAGED BUSINESS ENTERPRISE IN FEDERAL AID
CONTRACT" (000---007)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000---010)
SPECIAL PROVISION "IMPORTANT NOTICE TO CONTRACTORS" (000---029)
SPECIAL PROVISION TO ITEM 6 (006---001)
SPECIAL PROVISION TO ITEM 7 (007---001)
SPECIAL PROVISIONS TO ITEM 8 (008---004)(008---006)
SPECIAL PROVISION TO ITEM 506 (506---001)

SPECIAL SPECIFICATIONS:

ITEM 6001 PORTABLE CHANGEABLE MESSAGE SIGN
ITEM 6002 VIDEO IMAGING VEHICLE DETECTION SYSTEM
ITEM 6055 TRAILER MOUNTED SOLAR POWERED RADAR SPEED
ITEM 6058 BATTERY BACK-UP SYSTEM FOR SIGNAL CABINETS (420)(620)
ITEM 6079 AUTOMATED PORTABLE SMART TRAFFIC MONITORING SYSTEM (6001)
ITEM 6083 VIDEO IMAGING AND RADAR VEHICLE DETECTION SYSTEM
ITEM 6084 MODIFYING EXISTING ELECTRICAL SERVICES (441)(445)(618)
(620)(628)

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 8

Prosecution and Progress



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

This item is supplemented by the following:

9. **Incentive Using Road-User Cost or Contract Administration Liquidated Damage Values and Disincentive Using Road-User Cost.** This special provision is for the application of incentives and disincentives as follows:
- incentives for early Contract completion using contract administration liquidated damage or substantial completion of work ahead of time using daily road-user cost values as basis and
 - disincentives for late substantial completion of work using daily road-user costs.
- Incentive provisions, based on contract administration liquidated damages, will apply when shown on the plans. Incentive provisions, based on road-user cost, will apply when shown on the plans. Disincentive provisions, based on road-user cost, will apply when road-user cost incentive provisions are shown on the plans. The disincentive provisions, based on road-user cost, will also apply when shown separately on the plans (without an associated road-user cost incentive). Definitions are as follows:
- **Contract Completion** - The final acceptance date (day) unless performance, establishment and maintenance periods occur. In the case of performance, establishment and maintenance periods, completion shall be considered when all work is complete and accepted except for performance, establishment and maintenance periods, with time computed to the suspension of time charges for the acceptance process.
 - **Substantial Completion of Work** - The date (day) when all project work (or the work for a specified milestone or phase) requiring lane or shoulder closures or obstructions is completed, and traffic is following the lane arrangement as shown on the plans for the finished roadway (or the specified milestone or phase of work); all pavement construction and resurfacing are complete; and traffic control devices and pavement markings are in their final position (or as called for on the plans for the specified milestone of work). The Engineer may make an exception for permanent pavement markings provided the lack of markings does not cause a disruption to traffic flow or an unsafe condition for the traveling public, and work zone pavement markings are in place.

When A + B Bidding provisions are included in the Contract, the B working days bid will be considered as the time allowed for completion, contract or substantial as applicable. In addition, the plans will show either the number of working days or a specific date for the purposes of computing substantial completion incentives or disincentives.

Time charge adjustments will be made in accordance with the schedule required to meet Article 8.1, "Prosecution of Work" and Article 8.5, "Project Schedules," the proposal, and the plans. For Contracts with milestone dates, time charges for the completion incentives and disincentives will not be adjusted for weather, weekends, holidays, or other unforeseeable events not under the control or responsibility of the Department. However, time charges for completion incentives or disincentives may be adjusted by the Engineer when;

- work, under the control of the Department, such as extension of limits or changes in scope, change the actual duration of completion,

- delays occur due to unadjusted utilities or unclear right-of-way when clearance is not the responsibility of the Contractor, or
- catastrophic events occur, such as a declared state of emergency or natural disaster, if the event directly affects the Contractor's prosecution.

- 9.1. **Incentives.** When shown on the plans and in accordance with the Contract, the Department will pay an incentive for the early Contract completion or substantial completion of work under the number of working days stipulated in the Contract. The maximum number of working days used in computing the credit will be 30 days for each milestone and Contract completion incentive unless otherwise shown in the Contract. The amount of the credit will be added to money due or to become due to the Contractor.
- 9.1.1. **Early Contract Completion Incentive.** The incentive will be based on the difference between the actual early Contract completion days and the Contract completion days in the Contract. The difference will then be multiplied by the daily contract administration liquidated damage value shown in the proposal.
- 9.1.2. **Early Substantial Completion of Work Incentive.** The incentive will be based on the differences between the actual early substantial completion of work and the Contract days allowed to substantially complete the work (or the specified milestone or phase of work). The difference will then be multiplied by the daily road-user cost values specified for substantial Contract completion (or road-user cost specified for the corresponding milestone or phase of work).
- 9.2. **Disincentives for Failure to Substantially Complete Work on Time.** When shown on the plans and in accordance with the Contract, failure to substantially complete the work (or specified milestone or phase of work) within the established number of working days will result in the assessment of disincentives using the daily road-user cost shown on the plans for each working day in excess of those allowed. The road-user cost disincentive deductions will be in addition to any Contract administration liquidated damages, in accordance with Article 8.6, "Failure to Complete Work on Time." The amount of the disincentive will be deducted from money due or to become due to the Contractor. The road-user cost disincentives will be assessed not as a penalty, but for added expense incurred by the traveling public.