

SUBJECT: PLANS AND PROPOSAL ADDENDUMS
PROJECT: STP 2023 (472) HES CONTROL: 0002-04-034
COUNTY: HUDSPETH
LETTING: 02/02/2023
REFERENCE NO: 0120

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: ALL)
_ GENERAL NOTES (SH. NO.:)
X SPEC LIST (SH. NO.: ALL)
X SPECIAL PROVISIONS:
ADDED: 334---003, 340---004, 341---004

DELETED:

X SPECIAL SPECIFICATIONS:
ADDED: 3076, 6438

DELETED:

X OTHER: PLAN SHEETS AND OTHER CHANGES

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

NEW WAGE RATE(S) Y

***** PROPOSAL *****
UPDATED THE WAGE RATES TO THE 2023 YEAR

REVISED DBE GOAL PAGE

SPECIAL PROVISIONS WERE ADDED: SP334-003, SP340-004 AND SP341-004

SPECIAL SPECIFICATION ADDED: SS3076 AND SS6438

***** BID INSERTS *****

REVISED QUANTITIES FOR THE FOLLOWING BID ITEMS: 100-6002, 420-6066

ADDED THE FOLLOWING BID ITEMS: 351-6002, 450-6004, AND 545-6013

DELETED THE FOLLOWING BID ITEMS: 450-6030, 545-6019

***** SPECIFICATIONS LIST *****
DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

(CONTINUED)

SHEET 1 OF 3: REVISED TO ADD REFERENCE ITEM 492 TO ITEM 540 AND REFERENCE ITEM 6438 TO ITEM 666

ADDED ITEM 351 (132) (204) (247) (260) (263) (275) (276) (292) (310) (316) (330) (334) (340) (341) (3076)

SHEET 2 OF 3: ADDED SPECIAL PROVISIONS: SP334-003, SP340-004 AND SP341-004

SHEET 3 OF 3: ADDED SPECIAL SPECIFICATION SS3076 AND SS6438

***** PLAN SHEETS *****

SHEET 7 (ESTIMATE AND QUANTITY SHEET): REVISED SHEET TO ADD ITEMS 351-6002 450-6004, AND 545-6013. REMOVED ITEMS 450-6030 AND 545-6019. CHANGED QUANTITY FOR ITEMS 100-6002 AND 420-6066.

SHEET 7A (ESTIMATE AND QUANTITY SHEET): SHEET ADDED DUE TO SHIFTING OF ITEMS ONCE MISSING ITEM 351-6002 WAS INCLUDED.

SHEET 8 (QUANTITY SUMMARY SHEET): REVISED SUMMARY OF ROADWAY ITEMS TO ADD ITEMS 351-6002, 450-6004, AND 545-6013. REMOVED ITEMS 450-6030 AND 545-6019 AND CHANGED QUANTITY FOR ITEMS 100-6002 AND 420-6066.

SHEET 41 (ROADWAY LAYOUT SHEET): REVISED SHEET SUMMARY TABLE TO ADD ITEMS 450-6004 AND 545-6013. REMOVED ITEMS 450-6050 AND 545-6019.

SHEET 45 AND 52 (ROADWAY LAYOUT SHEET): REVISED SUMMARY TABLE TO CHANGE THE QUANTITY FOR ITEMS 100-6002 AND 420-6066.

SHEET 56 (RETROFIT GUIDE FOR CONCRETE RAILS (C-RAIL-R): REVISED SHEET TO REMOVE DETAIL FOR RAIL RETROFIT FOR ALAMO ARROYO BRIDGE .



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0002-04-034

DISTRICT El Paso
HIGHWAY SH 20

COUNTY Hudspeth

| CONTROL SECTION JOB | | | | 0002-04-034 | | 0002-04-037 | | TOTAL EST. | TOTAL FINAL |
|---------------------|----------|--|------|-------------|-------|-------------|-------|------------|-------------|
| PROJECT ID | | | | A00177453 | | A00190740 | | | |
| COUNTY | | | | Hudspeth | | Hudspeth | | | |
| HIGHWAY | | | | SH 20 | | SH 20 | | | |
| ALT | BID CODE | DESCRIPTION | UNIT | EST. | FINAL | EST. | FINAL | | |
| | 100-6002 | PREPARING ROW | STA | 289.600 | | | | 289.600 | |
| | 112-6003 | SUBGRADE WIDENING (DENS CONT) | SY | 38,388.000 | | | | 38,388.000 | |
| | 134-6004 | BACKFILL (TY A OR B) | STA | 374.000 | | | | 374.000 | |
| | 216-6001 | PROOF ROLLING | HR | 10.900 | | | | 10.900 | |
| | 247-6230 | FL BS (CMP IN PLACE)(TY A GR 1-2)(8") | SY | 31,793.000 | | | | 31,793.000 | |
| | 310-6014 | PRIME COAT (SS-1H) | GAL | 5,079.000 | | | | 5,079.000 | |
| | 316-6001 | ASPH (MULTI OPTION) | GAL | 8,835.000 | | | | 8,835.000 | |
| | 316-6224 | AGGR(TY-PB GR-4 SAC-B) | CY | 227.000 | | | | 227.000 | |
| | 351-6002 | FLEXIBLE PAVEMENT STRUCTURE REPAIR(6") | SY | 134.000 | | | | 134.000 | |
| | 354-6021 | PLANE ASPH CONC PAV(0" TO 2") | SY | 1,232.000 | | | | 1,232.000 | |
| | 354-6134 | PLANE ASPH CONC PAV (0" TO 1/2" MICRO) | SY | 115.000 | | | | 115.000 | |
| | 416-6001 | DRILL SHAFT (18 IN) | LF | | | 48.000 | | 48.000 | |
| | 420-6066 | CL C CONC (RAIL FOUNDATION) | CY | | | 15.500 | | 15.500 | |
| | 450-6004 | RAIL (TY T221) | LF | 20.000 | | | | 20.000 | |
| | 450-6055 | RAIL (TY T221) (MOD) | LF | | | 73.000 | | 73.000 | |
| | 451-6005 | RETROFIT RAIL (TY T221) | LF | 12.000 | | | | 12.000 | |
| | 500-6001 | MOBILIZATION | LS | 1.000 | | | | 1.000 | |
| | 502-6001 | BARRICADES, SIGNS AND TRAFFIC HANDLING | MO | 10.000 | | | | 10.000 | |
| | 506-6038 | TEMP SEDMT CONT FENCE (INSTALL) | LF | 19,113.000 | | | | 19,113.000 | |
| | 506-6039 | TEMP SEDMT CONT FENCE (REMOVE) | LF | 19,113.000 | | | | 19,113.000 | |
| | 533-6004 | RUMBLE STRIPS (CENTERLINE) ASPHALT | LF | 29,808.000 | | | | 29,808.000 | |
| | 540-6001 | MTL W-BEAM GD FEN (TIM POST) | LF | 350.000 | | | | 350.000 | |
| | 540-6006 | MTL BEAM GD FEN TRANS (THRIE-BEAM) | EA | 4.000 | | | | 4.000 | |
| | 542-6001 | REMOVE METAL BEAM GUARD FENCE | LF | 225.000 | | | | 225.000 | |
| | 542-6003 | REMOVE DOWNSTREAM ANCHOR TERMINAL | EA | 2.000 | | | | 2.000 | |
| | 544-6001 | GUARDRAIL END TREATMENT (INSTALL) | EA | 4.000 | | | | 4.000 | |
| | 544-6003 | GUARDRAIL END TREATMENT (REMOVE) | EA | 2.000 | | | | 2.000 | |
| | 545-6013 | CRASH CUSH ATTEN (INSTL)(R)(N)(TL3) | EA | 4.000 | | | | 4.000 | |
| | 560-6025 | RELOCATE EXISTING MAILBOX | EA | 15.000 | | | | 15.000 | |
| | 644-6001 | IN SM RD SN SUP&AM TY10BWG(1)SA(P) | EA | 9.000 | | | | 9.000 | |
| | 644-6004 | IN SM RD SN SUP&AM TY10BWG(1)SA(T) | EA | 3.000 | | | | 3.000 | |
| | 644-6007 | IN SM RD SN SUP&AM TY10BWG(1)SA(U) | EA | 1.000 | | | | 1.000 | |
| | 644-6030 | IN SM RD SN SUP&AM TYS80(1)SA(T) | EA | 1.000 | | | | 1.000 | |
| | 644-6068 | RELOCATE SM RD SN SUP&AM TY 10BWG | EA | 12.000 | | | | 12.000 | |
| | 644-6076 | REMOVE SM RD SN SUP&AM | EA | 14.000 | | | | 14.000 | |
| | 658-6047 | INSTL OM ASSM (OM-2Y)(WC)GND | EA | 19.000 | | | | 19.000 | |
| | 658-6060 | REMOVE DELIN & OBJECT MARKER ASSMS | EA | 19.000 | | | | 19.000 | |

ADDED 1/24/2023 AF

REVISED 1/24/2023 AF



| | | | |
|----------|----------|-------------|-------|
| DISTRICT | COUNTY | CCSJ | SHEET |
| El Paso | Hudspeth | 0002-04-034 | 7 |



Estimate & Quantity Sheet

CONTROLLING PROJECT ID 0002-04-034

DISTRICT El Paso
HIGHWAY SH 20

COUNTY Hudspeth

| CONTROL SECTION JOB | | | | 0002-04-034 | | 0002-04-037 | | TOTAL EST. | TOTAL FINAL |
|---------------------|-----------|---|------|-------------|-------|-------------|-------|------------|-------------|
| PROJECT ID | | | | A00177453 | | A00190740 | | | |
| COUNTY | | | | Hudspeth | | Hudspeth | | | |
| HIGHWAY | | | | SH 20 | | SH 20 | | | |
| ALT | BID CODE | DESCRIPTION | UNIT | EST. | FINAL | EST. | FINAL | | |
| | 666-6041 | REFL PAV MRK TY I (W)12"(SLD)(090MIL) | LF | 525.000 | | | | 525.000 | |
| | 666-6285 | REF PROF PAV MRK TY I(W)6"(SLD)(090MIL) | LF | 60,116.000 | | | | 60,116.000 | |
| | 666-6308 | RE PM W/RET REQ TY I (W)6"(SLD)(090MIL) | LF | 2,148.000 | | | | 2,148.000 | |
| | 666-6317 | RE PM W/RET REQ TY I (Y)6"(BRK)(090MIL) | LF | 7,363.000 | | | | 7,363.000 | |
| | 666-6320 | RE PM W/RET REQ TY I (Y)6"(SLD)(090MIL) | LF | 5,290.000 | | | | 5,290.000 | |
| | 672-6009 | REFL PAV MRKR TY II-A-A | EA | 442.000 | | | | 442.000 | |
| | 677-6028 | ELIM EXT PV MRK & MRKS (RUMBLE STRIP) | LF | 57,916.000 | | | | 57,916.000 | |
| | 3077-6052 | SP MIXESSP-DSAC-A PG70-22 | TON | 8,543.000 | | | | 8,543.000 | |
| | 3077-6054 | SP MIXESSP-DSAC-A PG70-22 (LEVEL-UP) | TON | 286.000 | | | | 286.000 | |
| | 3077-6075 | TACK COAT | GAL | 3,220.000 | | | | 3,220.000 | |
| | 3085-6001 | UNDERSEAL COURSE | GAL | 20,615.000 | | | | 20,615.000 | |
| | 6001-6001 | PORTABLE CHANGEABLE MESSAGE SIGN | DAY | 180.000 | | | | 180.000 | |
| | 6185-6002 | TMA (STATIONARY) | DAY | 168.000 | | | | 168.000 | |
| | 18 | LAW ENFORCEMENT: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING) | LS | 1.000 | | | | 1.000 | |
| | | EROSION CONTROL MAINTENANCE: CONTRACTOR FORCE ACCOUNT WORK (PART) | LS | 1.000 | | | | 1.000 | |
| | | SAFETY CONTINGENCY: CONTRACTOR FORCE ACCOUNT WORK (PARTICIPATING) | LS | 1.000 | | | | 1.000 | |

REVISED 1/24/2023 AF



| | | | |
|----------|----------|-------------|-------|
| DISTRICT | COUNTY | CCSJ | SHEET |
| El Paso | Hudspeth | 0002-04-034 | 7A |

DATE: 1/18/2023 4:30:57 PM
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| SUMMARY OF ROADWAY ITEMS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---------------|-------------------------------|----------------------|---------------|---|--------------------|---------------------|--------------------------|---|--------------------------------|--|---------------------|-----------------------------|----------------|----------------------|-------------------------|------------------------------|------------------------------------|-------------------------------|-----------------------------------|-----------------------------------|----------------------------------|--|-----------------------------|--|-----------|------------------|
| LOCATION | 100 | 112 | 134 | 216 | 247 | 310 | 316 | 316 | 351 | 354 | 354 | 416 | 420 | 450 | 450 | 451 | 540 | 540 | 542 | 542 | 544 | 544 | 545 | 3077 | 3077 | 3077 | 3085 |
| | 6002 | 6003 | 6004 | 6001 | 6230 | 6014 | 6001 | 6224 | 6002 | 6021 | 6134 | 6001 | 6066 | 6004 | 6055 | 6005 | 6001 | 6006 | 6001 | 6003 | 6001 | 6003 | 6013 | 6052 | 6054 | 6075 | 6001 |
| | PREPARING ROW | SUBGRADE WIDENING (DENS CONT) | BACKFILL (TY A OR B) | PROOF ROLLING | FL BS (CMP IN PLACE) (TY A GR 1-2) (8") | PRIME COAT (SS-1H) | ASPH (MULTI OPTION) | AGGR (TY-P B GR-4 SAC-B) | FLEXIBLE PAVEMENT STRUCTURE REPAIR (6") | PLANE ASPH CONC PAV (0" TO 2") | PLANE ASPH CONC PAV (0" TO 1/2" MICRO) | DRILL SHAFT (18 IN) | CL C CONC (RAIL FOUNDATION) | RAIL (TY T221) | RAIL (TY T221) (MOD) | RETROFIT RAIL (TY T221) | MTL W-BEAM GD FEN (TIM POST) | MTL BEAM GD FEN TRANS (THREE-BEAM) | REMOVE METAL BEAM GUARD FENCE | REMOVE DOWNSTREAM ANCHOR TERMINAL | GUARDRAIL END TREATMENT (INSTALL) | GUARDRAIL END TREATMENT (REMOVE) | CRASH CUSH ATTEN (INSTR) (R) (N) (TL3) | SP MIXES SP-D SAC-A PG70-22 | SP MIXES SP-D SAC-A PG70-22 (LEVEL-UP) | TACK COAT | UNDERSEAL COURSE |
| STA | SY | STA | HR | SY | GAL | GAL | CY | SY | SY | SY | LF | CY | LF | LF | LF | LF | EA | LF | EA | EA | EA | EA | TON | TON | GAL | GAL | |
| CSJ: 0002-04-034 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SHEET 1 | 21.6 | 2874 | 29 | 0.8 | 2395 | 383 | 671 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 632 | 22 | 550 | 1533 | |
| SHEET 2 | 24 | 2977 | 20 | 0.9 | 2498 | 393 | 687 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 690 | 22 | 70 | 1673 |
| SHEET 3 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 19 | 258 | 1707 |
| SHEET 4 | 24 | 3200 | 32 | 0.9 | 2547 | 427 | 713 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 736 | 20 | 320 | 1707 |
| SHEET 5 | 24 | 3200 | 32 | 0.9 | 2667 | 424 | 741 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 30 | 190 | 1704 |
| SHEET 6 | 22.5 | 3005 | 30 | 0.9 | 2467 | 366 | 640 | 17 | 0 | 1232 | 0 | 0 | 0 | 0 | 0 | 350 | 4 | 225 | 2 | 4 | 2 | 0 | 684 | 36 | 198 | 1659 | |
| SHEET 7 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 22 | 79 | 1707 |
| SHEET 8 | 24 | 3200 | 32 | 0.9 | 2608 | 427 | 730 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 719 | 20 | 303 | 1707 |
| SHEET 9 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 15 | 320 | 1707 |
| SHEET 10 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 21 | 281 | 1707 |
| SHEET 11 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 27 | 320 | 1707 |
| SHEET 12 | 24 | 3200 | 32 | 0.9 | 2667 | 427 | 747 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 704 | 25 | 253 | 1707 |
| SHEET 13 | 5.5 | 732 | 7 | 0.2 | 609 | 97 | 171 | 4 | 134 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 154 | 7 | 78 | 390 | |
| CSJ: 0002-04-037 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SHEET 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 15.5 | 0 | 73.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PROJECT TOTALS | 289.6 | 38388 | 374 | 10.9 | 31793 | 5079 | 8835 | 227 | 134 | 1232 | 115 | 48 | 15.5 | 20 | 73.32 | 12 | 350 | 4 | 225 | 2 | 4 | 2 | 4 | 8543 | 286 | 3220 | 20615 |



| SUMMARY OF SIGNING AND PAVEMENT MARKING ITEMS | | | | | | | | | | | | | | | | | | |
|---|------------------------------------|---------------------------|---------------------------------------|---------------------------------------|---------------------------------------|------------------------------------|----------------------------------|------------------------|--------------------------------|------------------------------------|--|---|--|--|--|-------------------------|---------------------------------------|--|
| LOCATION | 533 | 560 | 644 | 644 | 644 | 644 | 644 | 644 | 658 | 658 | 666 | 666 | 666 | 666 | 672 | 677 | | |
| | 6004 | 6025 | 6001 | 6004 | 6007 | 6030 | 6068 | 6076 | 6047 | 6060 | 6041 | 6285 | 6308 | 6317 | 6320 | 6009 | 6028 | |
| | RUMBLE STRIPS (CENTERLINE) ASPHALT | RELOCATE EXISTING MAILBOX | IN SM RD SN SUP&AM TY10BWG (1) SA (P) | IN SM RD SN SUP&AM TY10BWG (1) SA (T) | IN SM RD SN SUP&AM TY10BWG (1) SA (U) | IN SM RD SN SUP&AM TY80 (1) SA (T) | RELOCATE SM RD SN SUP&AM TY10BWG | REMOVE SM RD SN SUP&AM | INSTR OM ASSM (OM-2Y) (WC) GND | REMOVE DELIN & OBJECT MARKER ASSMS | REFL PAV MRK TY I (W) 12" (SLD) (090MIL) | REF PROF PAV MRK TY I (W) 6" (SLD) (090MIL) | RE PM W/RET REQ TY I (W) 6" (SLD) (090MIL) | RE PM W/RET REQ TY I (Y) 6" (BRK) (090MIL) | RE PM W/RET REQ TY I (Y) 6" (SLD) (090MIL) | REFL PAV MRKR TY II-A-A | ELIM EXT PV MRK & MRKS (RUMBLE STRIP) | |
| LF | EA | EA | EA | EA | EA | EA | EA | EA | EA | EA | LF | LF | LF | LF | LF | EA | LF | |
| CSJ: 0002-04-034 | | | | | | | | | | | | | | | | | | |
| SHEET 1 | 2455 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4910 | 0 | 614 | 0 | 32 | 4910 | |
| SHEET 2 | 2200 | 1 | 2 | 0 | 0 | 0 | 4 | 2 | 4 | 2 | 271 | 4400 | 1125 | 467 | 2116 | 52 | 4400 | |
| SHEET 3 | 2200 | 3 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 4400 | 0 | 550 | 330 | 32 | 4400 | |
| SHEET 4 | 2200 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 5 | 2200 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 0 | 4400 | 0 | 550 | 452 | 33 | 4400 | |
| SHEET 6 | 1804 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 6 | 254 | 4108 | 1023 | 445 | 2392 | 52 | 1908 | |
| SHEET 7 | 2200 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 8 | 2200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 9 | 2200 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 10 | 2200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 11 | 2200 | 0 | 1 | 1 | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 12 | 2200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 13 | 2200 | 0 | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 4400 | 0 | 550 | 0 | 28 | 4400 | |
| SHEET 14 | 1349 | 0 | 4 | 0 | 0 | 0 | 1 | 4 | 4 | 2 | 0 | 2698 | 0 | 337 | 0 | 17 | 2698 | |
| PROJECT TOTALS | 29808 | 15 | 9 | 3 | 1 | 1 | 12 | 14 | 19 | 19 | 525 | 60116 | 2148 | 7363 | 5290 | 442 | 57916 | |


| SUMMARY OF WORKZONE TRAFFIC CONTROL ITEMS | | | | | | |
|---|--------------|--|---------------------------------|--------------------------------|----------------------------------|------------------|
| LOCATION | 500 | 502 | 506 | 506 | 6001 | 6185 |
| | 6001 | 6001 | 6038 | 6039 | 6001 | 6002 |
| | MOBILIZATION | BARRICADES, SIGNS AND TRAFFIC HANDLING | TEMP SEDMT CONT FENCE (INSTALL) | TEMP SEDMT CONT FENCE (REMOVE) | PORTABLE CHANGEABLE MESSAGE SIGN | TMA (STATIONARY) |
| LS | MO | LF | LF | DAY | DAY | |
| CSJ 0002-04-034 | 1 | 10 | 19113 | 19113 | 180 | 168 |
| PROJECT TOTALS | 1 | 10 | 19113 | 19113 | 180 | 168 |

SH 20 GENERAL

QUANTITY SUMMARY SHEET

- NOTES:
1. PLANNING TO CORRECT RIDE QUALITY IDENTIFIED BY PROFILOGRAPH TESTING AS DIRECTED BY THE ENGINEER.
 2. FILL DIPS IDENTIFIED BY PROFILOGRAPH TESTING.

 ADDED 1/18/2023
 REVISED 1/18/2023 AF

| | | | |
|---|----------|-----------|-----------|
| SHEET 1 OF 1 | | | |
| ©2022 | | | |
|  | | | |
| CONT | SECT | JOB | HIGHWAY |
| 0002 | 04 | 034, ETC. | SH 20 |
| DIST | COUNTY | | SHEET NO. |
| ELP | HUDSPETH | | 8 |

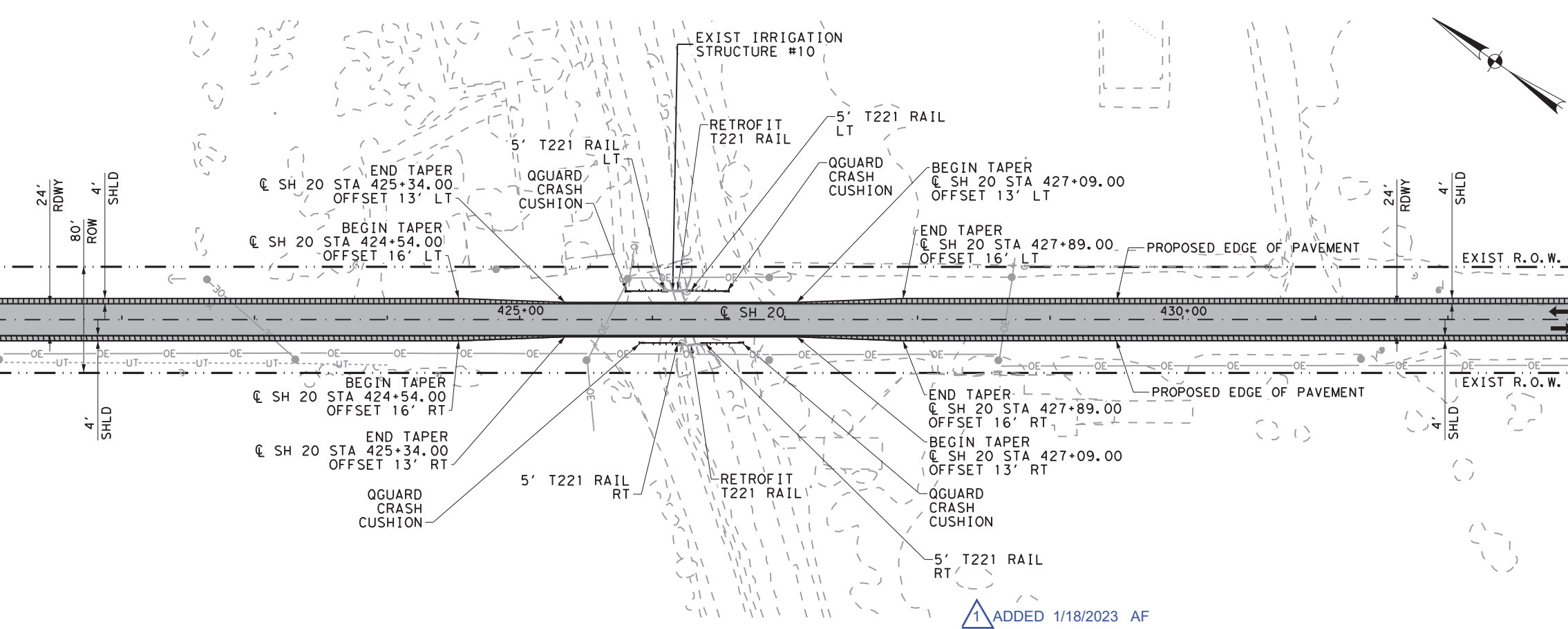
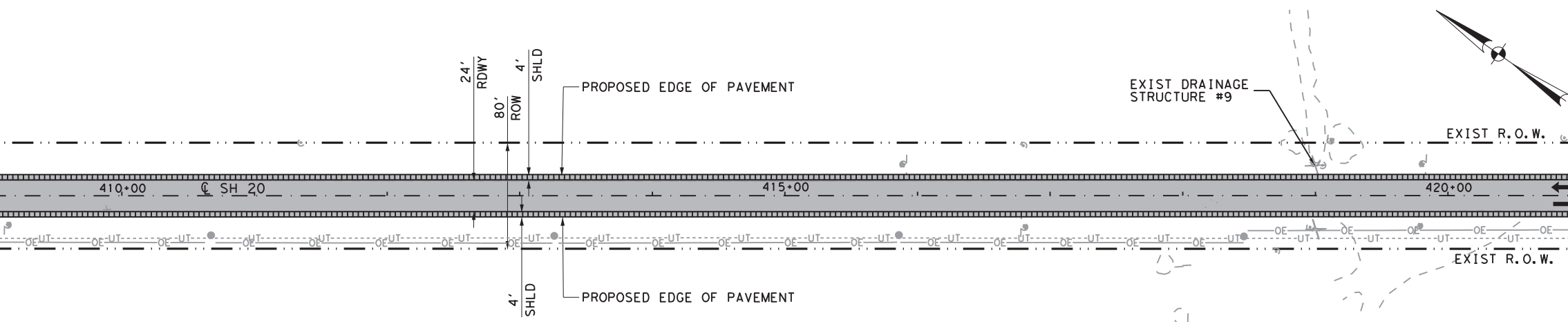
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MATCH LINE STA. 409+00.00

MATCH LINE STA. 421+00.00

MATCH LINE STA. 421+00.00

MATCH LINE STA. 433+00.00



CSJ: 0002-04-034; ROADWAY (ESTIMATED QUANTITIES)

| ITEM | CODE | DESCRIPTION | UNIT | QTY |
|------|------|---|------|------|
| 100 | 6002 | PREPARING ROW | STA | 24 |
| 112 | 6003 | SUBGRADE WIDENING (DENS CONT) | SY | 2977 |
| 134 | 6004 | BACKFILL (TY A OR B) | STA | 20 |
| 216 | 6001 | PROOF ROLLING | HR | 0.9 |
| 247 | 6230 | FL BS (CMP IN PLACE) (TY A GR 1-2) (8") | SY | 2498 |
| 310 | 6014 | PRIME COAT (SS-1H) | GAL | 393 |
| 316 | 6001 | ASPH (MULTI OPTION) | GAL | 687 |
| 316 | 6224 | AGGR (TY-PB GR-4 SAC-B) | CY | 18 |
| 450 | 6004 | RAIL (TY T221) | LF | 20 |
| 451 | 6005 | RETROFIT RAIL (TY T221) | LF | 12 |
| 545 | 6013 | CRASH CUSHION (INST) (FRONT) | EA | 3 |
| 3077 | 6052 | SP MIXES SP-D SAC-A PG70-22 | TON | 690 |
| 3077 | 6054 | SP MIXES SP-D SAC-A PG70-22 (LEVEL-UP) | TON | 22 |
| 3077 | 6075 | TACK COAT | GAL | 70 |
| 3085 | 6001 | UNDERSEAL COURSE | GAL | 1673 |



- LEGEND
- PROPOSED FULL-WIDTH 1.5" OVERLAY
 - PROPOSED SHOULDER PAVEMENT STRUCTURE WITH 1.5" OVERLAY
 - TRAFFIC FLOW
 - PROPOSED MBGF

- NOTES:
- UTILITIES SHOWN ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL IDENTIFY & LOCATE ALL UTILITIES WITHIN PROJECT LIMITS PRIOR TO PERFORMING ANY WORK.
 - EXISTING DRAINAGE AND IRRIGATION STRUCTURES TO REMAIN AND ARE NOT TO BE DISTURBED.
 - HORIZONTAL ALIGNMENT IS GENERATED FROM BEST FIT OF EXISTING GROUND LINE AT THE CENTERLINE AND IS PROVIDED FOR INFORMATION ONLY.
 - REFER TO PAVEMENT TRANSITION DETAILS AND MISCELLANEOUS DETAILS SHEETS FOR BRIDGE AND BEGINNING AND END OF PAVEMENT TRANSITIONS.



1/18/2023
SH 20 ROADWAY
ROADWAY LAYOUT

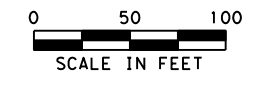
STA. 409+00.00 TO STA. 433+00.00

SHEET 2 OF 13

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| Texas Department of Transportation | | | |
| CONT | SECT | JOB | HIGHWAY |
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LEGEND

- PROPOSED FULL-WIDTH 1.5" OVERLAY
- PROPOSED SHOULDER PAVEMENT STRUCTURE WITH 1.5" OVERLAY
- TRAFFIC FLOW
- MBGF

NOTES:

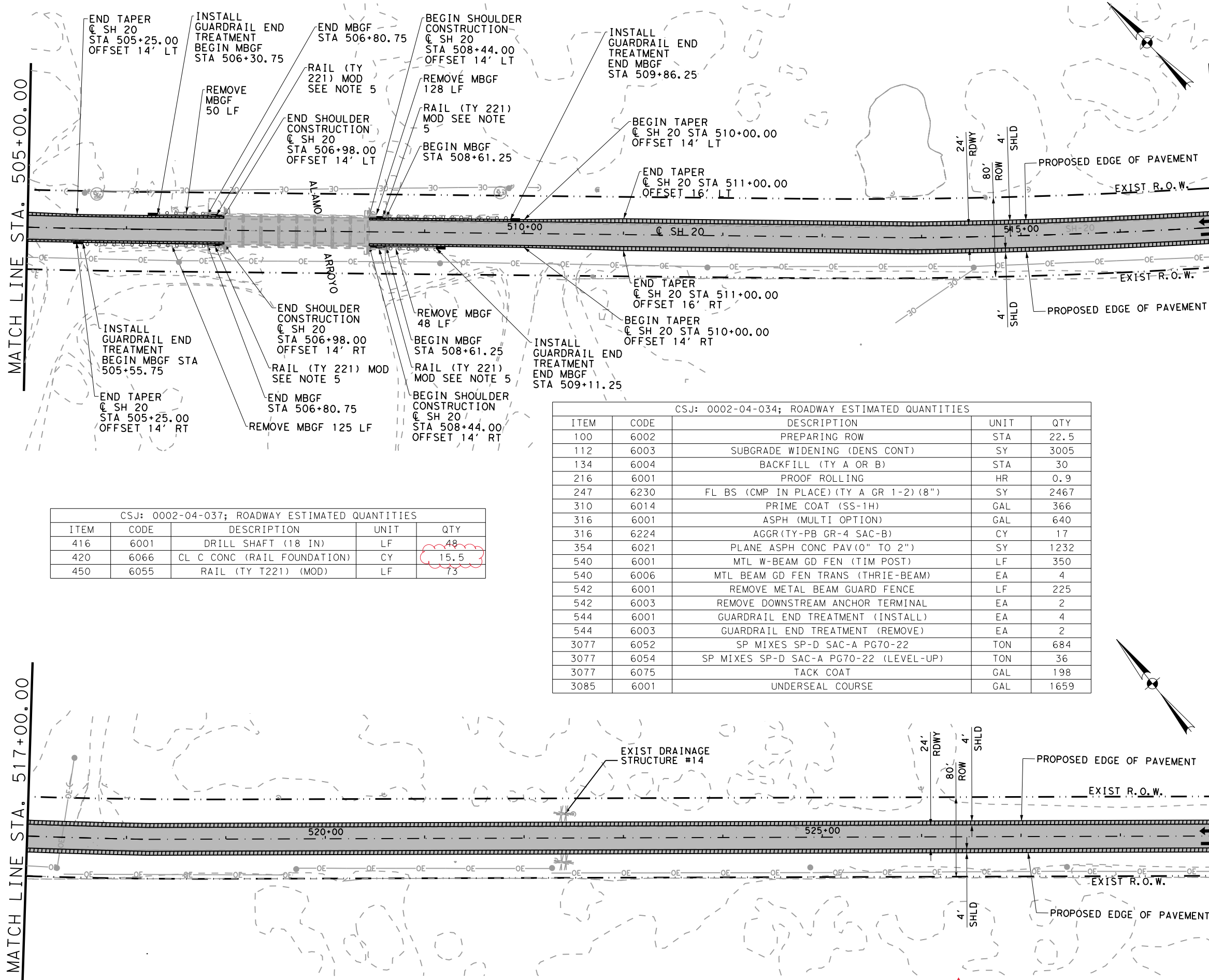
1. UTILITIES SHOWN ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL IDENTIFY & LOCATE ALL UTILITIES WITHIN PROJECT LIMITS PRIOR TO PERFORMING ANY WORK.
2. EXISTING DRAINAGE AND IRRIGATION STRUCTURES TO REMAIN AND ARE NOT TO BE DISTURBED.
3. HORIZONTAL ALIGNMENT IS GENERATED FROM BEST FIT OF EXISTING GROUND LINE AT THE CENTERLINE AND IS PROVIDED FOR INFORMATION ONLY.
4. REFER TO PAVEMENT TRANSITION DETAILS AND MISCELLANEOUS DETAILS SHEETS FOR BRIDGE AND BEGINING AND END OF PAVEMENT TRANSITIONS.
5. REFER TO TRANSITION RAIL DETAILS FOR MORE INFORMATION.

MATCH LINE STA. 505+00.00

MATCH LINE STA. 517+00.00

MATCH LINE STA. 517+00.00

MATCH LINE STA. 529+00.00



CSJ: 0002-04-037; ROADWAY ESTIMATED QUANTITIES

| ITEM | CODE | DESCRIPTION | UNIT | QTY |
|------|------|-----------------------------|------|------|
| 416 | 6001 | DRILL SHAFT (18 IN) | LF | 48 |
| 420 | 6066 | CL C CONC (RAIL FOUNDATION) | CY | 15.5 |
| 450 | 6055 | RAIL (TY T221) (MOD) | LF | 73 |

CSJ: 0002-04-034; ROADWAY ESTIMATED QUANTITIES

| ITEM | CODE | DESCRIPTION | UNIT | QTY |
|------|------|---|------|------|
| 100 | 6002 | PREPARING ROW | STA | 22.5 |
| 112 | 6003 | SUBGRADE WIDENING (DENS CONT) | SY | 3005 |
| 134 | 6004 | BACKFILL (TY A OR B) | STA | 30 |
| 216 | 6001 | PROOF ROLLING | HR | 0.9 |
| 247 | 6230 | FL BS (CMP IN PLACE) (TY A GR 1-2) (8") | SY | 2467 |
| 310 | 6014 | PRIME COAT (SS-1H) | GAL | 366 |
| 316 | 6001 | ASPH (MULTI OPTION) | GAL | 640 |
| 316 | 6224 | AGGR (TY-PB GR-4 SAC-B) | CY | 17 |
| 354 | 6021 | PLANE ASPH CONC PAV(0" TO 2") | SY | 1232 |
| 540 | 6001 | MTL W-BEAM GD FEN (TIM POST) | LF | 350 |
| 540 | 6006 | MTL BEAM GD FEN TRANS (THRIE-BEAM) | EA | 4 |
| 542 | 6001 | REMOVE METAL BEAM GUARD FENCE | LF | 225 |
| 542 | 6003 | REMOVE DOWNSTREAM ANCHOR TERMINAL | EA | 2 |
| 544 | 6001 | GUARDRAIL END TREATMENT (INSTALL) | EA | 4 |
| 544 | 6003 | GUARDRAIL END TREATMENT (REMOVE) | EA | 2 |
| 3077 | 6052 | SP MIXES SP-D SAC-A PG70-22 | TON | 684 |
| 3077 | 6054 | SP MIXES SP-D SAC-A PG70-22 (LEVEL-UP) | TON | 36 |
| 3077 | 6075 | TACK COAT | GAL | 198 |
| 3085 | 6001 | UNDERSEAL COURSE | GAL | 1659 |



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SH 20 ROADWAY

ROADWAY LAYOUT

STA. 505+00.00 TO STA. 529+00.00

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LEGEND

- PROPOSED FULL-WIDTH 1.5" OVERLAY
- PROPOSED SHOULDER PAVEMENT STRUCTURE WITH 1.5" OVERLAY
- TRAFFIC FLOW
- MBGF

NOTES:

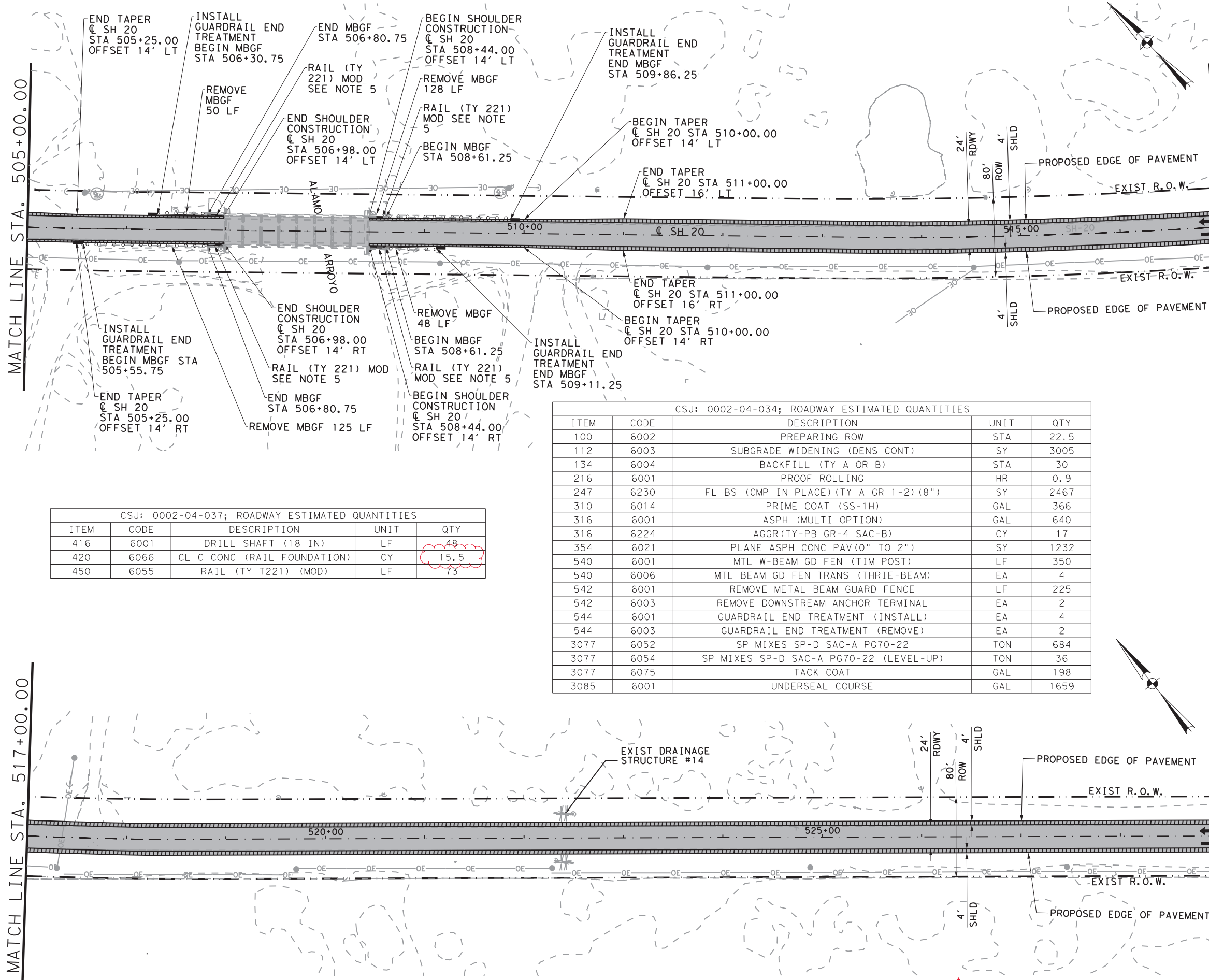
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SH 20 ROADWAY

ROADWAY LAYOUT

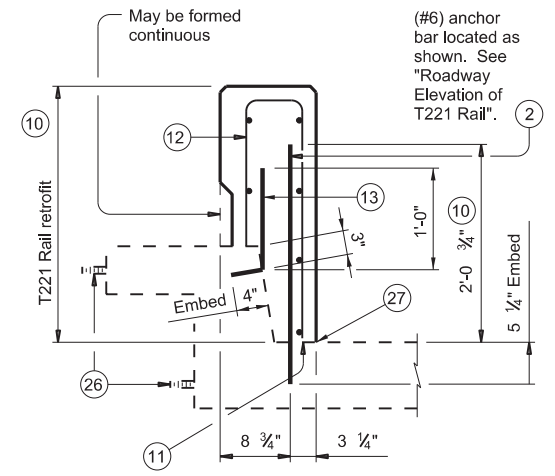
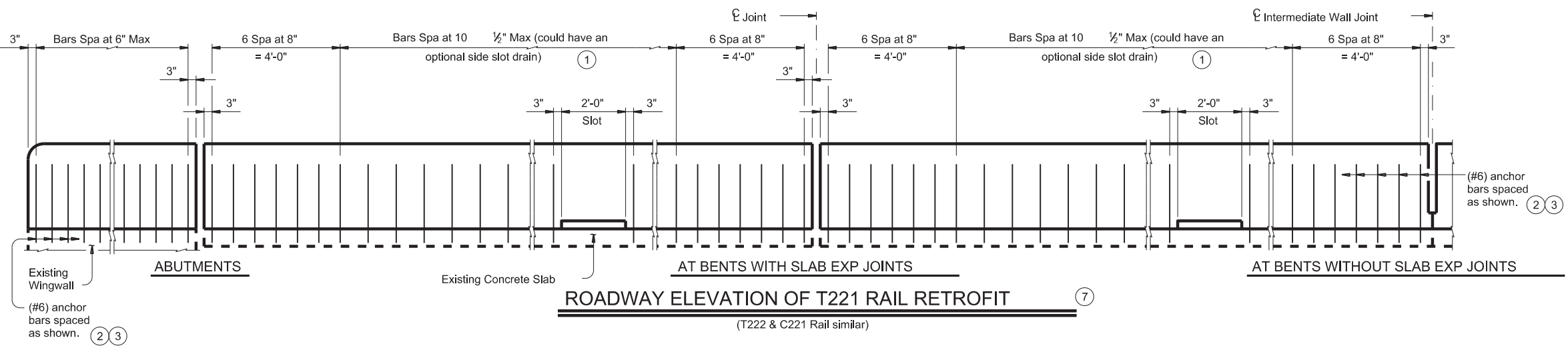
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RAIL RETROFIT FOR IRRIGATION CULVERT 10

CONSTRUCTION NOTES:
 Field verify dimensions before commencing work and ordering materials.
 By adding additional anchorage, welding can be performed at a minimum spacing of 3 ft between the cage and additional anchorage. By satisfying additional anchorage requirements slip forming is allowed. Do not weld to the required anchorage.
 Test adhesive anchors in accordance with Item 450.3.3, "Tests". Test 3 anchors per 100 anchors installed. Perform corrective measures to provide adequate capacity if any of the tests do not meet the required test load. Repair damage from testing as directed.

MATERIAL NOTES:
 Provide Grade 60 reinforcing steel.
 Epoxy coat or galvanize all reinforcing steel if required elsewhere.
 (#6) and (#4) anchor bars used for the adhesive anchorage system must not be epoxy coated within the required embedment.

GENERAL NOTES:
 Use of these retrofit details will result in a railing acceptable for the MASH Test Level indicated on the applicable rail standard.
 Rail anchorage details shown on this guide may require modification for select structure types. See appropriate details elsewhere in plans for these modifications. Not all possible combinations of existing railing, curbs, parapets etc. have been shown on this sheet. Other combinations and reinforcement arrangements are permissible if they meet the same strength requirements as indicated on this guide.
 Do not remove any part of a curb until it has been evaluated to not be a load-carrying structural component.
 Removal and replacement of backfill, subgrade, and asphalt or concrete pavement necessary for this installation is considered subsidiary to the retrofit railing.
 Payment for a rail retrofit will be as per Item 451, "Retrofit Railing", by the type of the rail retrofit. All details shown herein are subsidiary to rail retrofit. Examples are "Retrofit Rail (Ty T551)", "Retrofit Rail (Ty SSTR)", etc.

Reinforcing bar dimensions shown are out-to-out of bar.

- ① When side slot drains are used, provide 8'-0" Min clear spacing between drain slots.
- ② Embed (#6) anchor bars with a Type III, Class C, D, E, or F anchor adhesive. Minimum adhesive anchor embedment depth is 5 1/4". Anchor adhesive chosen must be able to achieve a basic bond strength in tension, Nba, of 20 kips. Submit signed and sealed calculations or the manufacturer's published literature showing the proposed anchor adhesive's ability to develop this load to the Engineer for approval prior to use. Anchor installation, including hole size, drilling, and clean out, must be in accordance with Item 450, "Railing".
- ③ See T221, T222 or C221 Rail Sections in "Rail Retrofit Section on Wingwalls using Adhesive Anchors" and/or "Rail Retrofit Section on Concrete Slabs using Adhesive Anchors".
- ⑥ Embed (#6) anchor bars with a Type III, Class C, D, E, or F anchor adhesive. Minimum adhesive anchor embedment depth is 5 1/4". Anchor adhesive chosen must be able to achieve a basic bond strength in tension, Nba, of 20 kips. Submit signed and sealed calculations or the manufacturer's published literature showing the proposed anchor adhesive's ability to develop this load to the Engineer for approval prior to use. Anchor installation, including hole size, drilling, and clean out, must be in accordance with Item 450, "Railing".
- ⑦ Showing location or locations of anchor bars in a rail retrofit condition. See appropriate rail standard for details and notes not shown.
- ⑧ Increase by amount of existing overlay/seal coat thickness, not to exceed 2". If thickness of existing overlay/seal coat is greater than 2" at toe of rail, taper overlay at a 1:10 or flatter slope over shoulder width to a thickness of 2" or less at toe of rail.
- ⑨ Do not cast rails or parapet walls on top of overlays/seal coats.
- ⑩ See appropriate rail standard for reinforcing steel. Modify length of vertical reinforcing bars as required to fit existing structure. Longitudinal reinforcing bars may be removed only if their position puts them in conflict with un-removed portions of existing structure.
- ⑪ Embed secondary (#4) anchor bars 1'-4" in length with a Type III Class C, D, E, or F anchor adhesive. Minimum adhesive anchor embedment depth is 4". Anchor adhesive chosen must be able to achieve a basic bond strength in tension, Nba, of 10 kips. Submit signed and sealed calculations or the manufacturer's published literature showing the proposed anchor adhesive's ability to develop this load to the Engineer for approval prior to use. Anchor installation, including hole size, drilling, and clean out, must be in accordance with Item 450, "Railing". (#4) anchor bars spaced longitudinally along rail at 4 ft Max (Spaced 3" longitudinally from outside edge and edge of side slot drains).
- ⑫ Increase by amount of existing overlay/seal coat thickness, not to exceed 2". If thickness of existing overlay/seal coat is greater than 2" at toe of rail, taper overlay at a 1:10 or flatter slope over shoulder width to a thickness of 2" or less at toe of rail.
- ⑬ Do not cast rails or parapet walls on top of overlays/seal coats.
- ⑳ Remove existing rail, cut and grind anchor bolts flush, and paint ends with two coats of zinc-rich paint conforming to the Item "Galvanizing."
- ㉑ Void out area in rail retrofit to accommodate existing drain holes in deck.



[Signature]
 1/18/2023

**RETROFIT GUIDE
 FOR CONCRETE RAILS
 (T221)**

C-RAIL-R

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