TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

FOR INDEX SEE SHEET IA

| TENN. | YEAR | SHEET NO. |
|---|---|---|
| | 2014 | 1 |
| STATE PROJ. NO. | 83008-3228-04 | |

S.R. 41 SUMNER COUNTY

# STATE OF TENNESSEE
# DEPARTMENT OF TRANSPORTATION
# BUREAU OF ENGINEERING

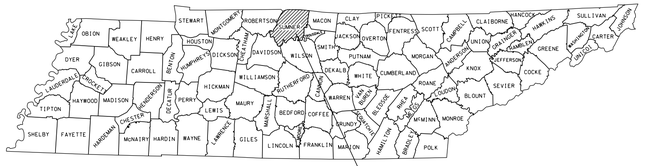
# SUMNER COUNTY

STATE ROUTE 41 (US-31W)

STATE ROUTE 41 SLIDE REPAIR AT LOG MILE 5.13

**CONSTRUCTION**

STATE HIGHWAY NO. 41 F.A.H.S. NO. 41

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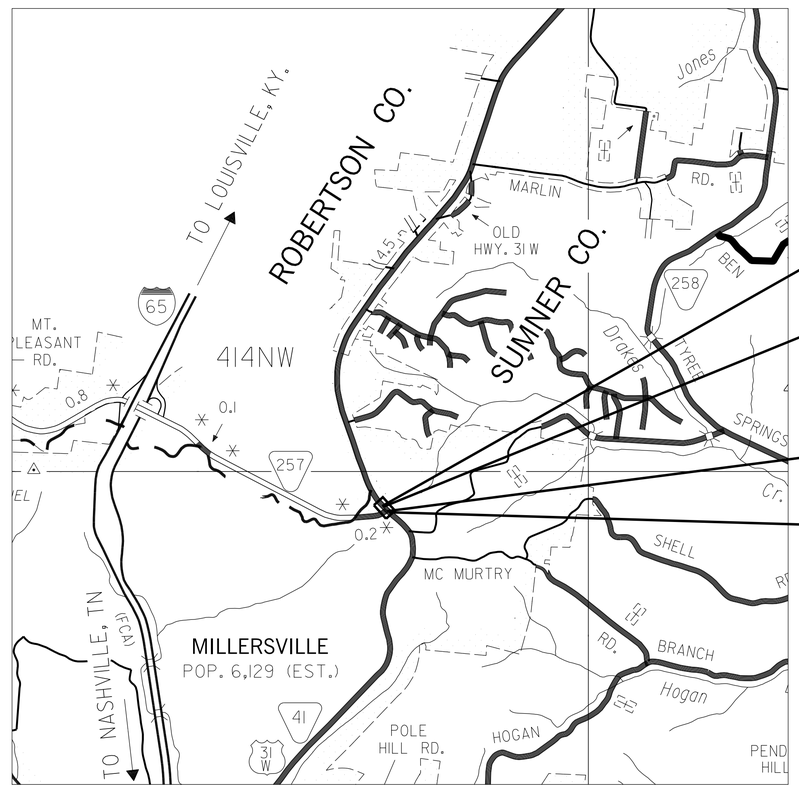


1" = 0.5 MILES

PROJECT LENGTH 0.0508 MILES

| |
|---|
| NO EXCLUSIONS |
| NO EQUATIONS |

**END CONSTRUCTION**
STATE PROJECT NO. 83008-3228-04
STA. 15+88.32 S.R. 41

**END RIGHT-OF-WAY**
STATE PROJECT NO. 83008-4230-04
STA. 15+36.93 S.R. 41

**BEGIN RIGHT-OF-WAY**
STATE PROJECT NO. 83008-4230-04
STA. 13+43.29 S.R. 41

**BEGIN CONSTRUCTION**
STATE PROJECT NO. 83008-3228-04
STA. 13+20.07 S.R. 41

APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE:

APPROVED:
JOHN SCHROER, COMMISSIONER

## SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT

TDOT TRANSPORTATION MANAGER MICHAEL J. DORAN, P.E.

DESIGNED BY ARCADIS U.S., INC.

DESIGNER JEFF HOILMAN, P.E. CHECKED BY BRIAN WHITAKER, P.E.

P.E. NO. 83008-4227-04

PIN 117389.00

SURVEY DATE: 07/02/2012

| TRAFFIC DATA | |
|---|---|
| ADT (2013) | 6284 |
| POSTED SPEED | 45 mph |

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR DATE

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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 1A |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

# INDEX


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# STANDARD ROADWAY DRAWINGS

| DWG. NO | REV. | DESCRIPTION |
|---|---|---|
| **ROADWAY DESIGN STANDARDS** | | |
| RD-A-1 | 12-18-99 | STANDARD ABBREVIATIONS |
| RD-L-1 | 10-26-94 | STANDARD LEGEND |
| RD-L-2 | 09-05-01 | STANDARD LEGEND FOR UTILITY INSTALLATIONS |
| RD-L-5 | 05-01-08 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |
| RD-L-6 | 03-30-10 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |
| RD-L-7 | 05-24-12 | STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL |
| RD01-S-11 | 04-04-03 | DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT |
| RD01-TS-3 | 10-15-02 | DESIGN STANDARD FOR 2-LANE ARTERIAL HIGHWAYS |
| **DRAINAGE – CATCH BASINS AND MANHOLES** | | |
| D-JBS-2 | 08-01-12 | STANDARD 4'X4' SQUARE CONCRETE NO. 2 JUNCTION BOX |
| **DRAINAGE - CULVERTS AND ENDWALL** | | |
| D-PB-1 | 01-02-13 | STANDARD DETAILS FOR CONCRETE PIPE INSTALLATION |
| D-PE-4 | 01-15-13 | STRAIGHT CONCRETE ENDWALL |
| D-PE-9 | 04-25-90 | CONCRETE ENDWALLS TYPE "B" (FOR ROUND & SIDE TAPERED INLETS, PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES) 1976 |
| D-PE-9A | 10-25-82 | GEN. DIMENSIONS AND QUANTITIES ROUND PIPE CONCRETE ENDWALLS TYPE "B" (PIPE SIZES 15" TO 78", ALL SKEWS, 2:1 AND 4:1 SLOPES) 1976 |
| D-PE-9C | | BILL OF STEEL (SHEET 1 OF 4) CONCRETE ENDWALLS TYPE "B" (FOR CONCRETE ROUND AND SIDE TAPERED INLETS, PIPE SIZE 15" TO 78", ALL SKEW, 2:1 SLOPE) 1976 |
| D-PE-24A | 06-14-13 | 24" CONCRETE ENDWALL CROSS DRAIN |
| D-PE-24B | 06-14-13 | 24" CONCRETE ENDWALL CROSS DRAIN |
| D-PE-30A | 06-14-13 | 30" CONCRETE ENDWALL CROSS DRAIN |
| D-PE-30B | 06-14-13 | 30" CONCRETE ENDWALL CROSS DRAIN |
| D-PE-99 | 11-01-13 | PIPE GRATE AND SKEWED CONNECTION DETAILS FOR "U" ENDWALLS |
| D-SEW-1A | 01-10-13 | SIDE DRAIN CONCRETE ENDWALL WITH STEEL PIPE GRATE |
| **ROADWAY AND PAVEMENT APPEARANCES** | | |
| RP-R-1 | 05-27-01 | STANDARD RAMPS TO SIDE ROADS |
| **SAFETY APPURTENANCES AND FENCE** | | |
| S-PL-2 | | SAFETY PLAN AT SIDE ROADS OR PRIVATE DRIVES |
| S-GR31-1 | | W-BEAM GUARDRAIL |
| S-GRA-3 | | GUARDRAIL ANCHOR FOR TYPE 21, 13, AND IN-LINE TERMINALS |
| S-RP-2 | 01-19-99 | STANDARD CONCRETE RIGHT-OF-WAY MARKERS |
| S-F-1 | 05-24-12 | HIGH VISIBILITY FENCE |

| DWG. NO | REV. | DESCRIPTION |
|---|---|---|
| **TRAFFIC CONTROL APPURTENANCES** | | |
| T-M-1 | 11-01-11 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS |
| T-M-2 | 01-15-13 | DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS |
| T-M-3 | 09-19-91 | MARKING STANDARDS FOR TRAFFIC ISLANDS, MEDIANS & PAVED SHOULDERS ON CONVENTIONAL ROADS |
| T-M-4 | 11-01-11 | STANDARD INTERSECTION PAVEMENT MARKINGS |
| T-PBR-1 | 06-30-09 | INTERCONNECTED PORTABLE BARRIER RAIL |
| T-PBR-2 | 11-01-11 | DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS |
| T-S-7 | 02-12-91 | HIGHWAY SHIELDS USED ON INTERSTATE AND U.S.NUMBERED ROUTES |
| T-S-8 | 07-15-91 | HIGHWAY SHIELDS USED ON STATE NUMBERED ROUTES AND ARROWS |
| T-S-9 | 11-01-11 | STANDARD LAYOUT GROUND MOUNTED SIGNS |
| T-S-10 | 04-04-12 | STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN |
| T-S-16 | 11-01-11 | GROUND MOUNTED ROADSIDE SIGN AND DETAILS |
| T-S-17 | 07-19-13 | STANDARD GROUND MOUNTED SIGN USING PERFORATED/KNOCKOUT SQUARE TUBE |
| T-S-19 | 07-19-13 | STANDARD STEEL SIGN SUPPORTS |
| T-S-20 | 11-01-11 | SIGN DETAILS |
| T-FAB-1 | 05-27-97 | FLASHING YELLOW ARROW BOARD |
| T-PBR-1 | 06-30-09 | INTERCONNECTED PORTABLE BARRIER RAIL |
| T-PBR-2 | 11-01-01 | DETAIL FOR VERTICAL PANELS AND FLEXIBLE DELINEATORS |
| T-WZ-10 | 04-02-02 | ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS |
| T-WZ-40 | 04-02-12 | RIGHT LANE CLOSURES AT NEAR SIDE OF INTERSECTIONS |
| **EROSION PREVENTION AND SEDIMENT CONTROL** | | |
| EC-STR-3C | 08-01-12 | SILT FENCE WITH WIRE BACKING |
| EC-STR-3E | 04-01-08 | SILT FENCE FABRIC JOINING DETAILS |
| EC-STR-6 | 08-01-12 | ROCK CHECK DAM |
| EC-STR-6A | 08-01-12 | ENHANCED ROCK CHECK DAM |
| EC-STR-11 | 08-01-12 | CULVERT PROTECTION TYPE 1 |
| EC-STR-11A | 08-01-12 | CULVERT PROTECTION TYPE 2 |
| EC-STR-25 | 08-01-12 | TEMPORARY CULVERT CROSSING, CONSTRUCTION EXIT, CONSTRUCTION FORD |
| EC-STR-32 | 08-01-12 | TEMPORARY DIVERSION CULVERTS |
| EC-STR-34 | 08-01-12 | EROSION CONTROL BLANKET FOR SLOPE INSTALLATION |
| EC-STR-37 | 08-01-12 | SEDIMENT TUBE |

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ROADWAY INDEX AND STANDARD DRAWINGS INDEX

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TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2 |

## ESTIMATED ROADWAY QUANTITIES

| | ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|---|---|---|---|---|
| | 105-01 | CONSTRUCTION STAKES, LINES AND GRADES | LS | 1 |
| | 201-01 | CLEARING AND GRUBBING | LS | 1 |
| | | | | |
| | 202-01.50 | REM. OF STRUCTURES & OBSTRUCTIONS (CONC. H.W.) | EACH | 1 |
| | 202-02.01 | REMOVAL OF PIPE (18" CMP) | L.F. | 67 |
| | 202-02.02 | REMOVAL OF PIPE (24" RCP) | L.F. | 14 |
| 1 | 202-01.03 | REMOVAL OF TRASH AND DEBRIS | LS | 1 |
| | | | | |
| | 203-01 | ROAD & DRAINAGE EXCAVATION (UNCLASSIFIED) | C.Y. | 2771 |
| | 203-02.01 | BORROW EXCAVATION (GRADED SOLID ROCK) | TON | 7340 |
| | 203-03 | BORROW EXCAVATION (UNCLASSIFIED) | C.Y. | 2890 |
| | 203-04 | PLACING AND SPREADING TOPSOIL | C.Y. | 404 |
| | 203-06 | WATER | M.G. | 7 |
| | | | | |
| 2 | 204-08.01 | BACKFILL MATERIAL (FLOWABLE FILL) | C.Y. | 25 |
| | | | | |
| 3 | 209-05 | SEDIMENT REMOVAL | C.Y. | 37 |
| 3 | 209-08.02 | TEMPORARY SILT FENCE (WITH BACKING) | L.F. | 176 |
| 3 | 209-08.07 | ROCK CHECK DAM PER | EACH | 19 |
| 3 | 209-08.08 | ENHANCED ROCK CHECK DAM | EACH | 7 |
| 3, 4 | 209-09.01 | SANDBAGS | BAG | 29 |
| | | | | |
| 5 | 303-01 | MINERAL AGGREGATE, TYPE A BASE, GRADING D | TON | 415 |
| 6 | 303-10.01 | MINERAL AGGREGATE (SIZE 57) | TON | 51 |
| | | | | |
| | 402-01 | BITUMINOUS MATERIAL FOR PRIME COAT (PC) | TON | 1 |
| | 402-02 | AGGREGATE FOR COVER MATERIAL (PC) | TON | 3 |
| | 403-01 | BITUMINOUS MATERIAL FOR TACK COAT (TC) | TON | 1 |
| | 411-01.07 | ACS MIX (PG64-22) GRADING E SHOULDER | TON | 36 |
| | 411-01.10 | ACS MIX(PG64-22) GRADING D | TON | 85 |
| | | | | |
| | 503-01.01 | MILLING CONCRETE | S.Y. | 1050 |
| | | | | |
| | 607-06.02 | 30" CONCRETE PIPE CULVERT (CLASS III) | L.F. | 60 |
| 7 | 607-60.13 | 30" STEEL PIPE CULVERT (JACKED-IN-PLACE) | L.F. | 128 |
| | 607-39.02 | 18" PIPE CULVERT (SIDE DRAIN) | L.F. | 83 |
| | | | | |
| | 611-02.11 | JUNCTION BOX, TYPE 2 | EACH | 2 |
| | 611-07.01 | CLASS A CONCRETE (PIPE ENDWALLS) | C.Y. | 3 |
| | 611-07.02 | STEEL BAR REINFORCEMENT (PIPE ENDWALLS) | LB. | 353 |
| | 611-07.32 | 24" ENDWALL (SIDE DRAIN) | EACH | 1 |
| | 611-07.60 | 30" ENDWALL (CROSS DRAIN) 3:1 | EACH | 1 |
| | | | | |
| 8 | 621-03.02 | 18" TEMPORARY DRAINAGE PIPE (DIVERSION) | L.F. | 139 |
| | | | | |
| | 705-02.02 | SINGLE GUARDRAIL (TYPE 2) | L.F. | 230 |
| | 705-04.05 | GUARDRAIL TERMINAL (TYPE-IN-LINE) | EACH | 2 |
| | 705-08.51 | PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3 | EACH | 4 |
| | | | | |
| | 706-01 | GUARDRAIL REMOVED | L.F. | 190 |
| | | | | |
| | 707-08.11 | HIGH-VISIBILITY CONSTRUCTION FENCE | L.F. | 68 |
| | | | | |
| | 708-02.01 | MARKERS (CONCRETE R.O.W. POSTS) | EACH | 6 |
| | | | | |
| 9 | 709-05.05 | MACHINED RIP-RAP (CLASS A-3) | TON | 758 |
| 10 | 709-05.06 | MACHINED RIP-RAP (CLASS A-1) | TON | 192 |
| | 709-05.08 | MACHINED RIP-RAP (CLASS B) | TON | 213 |
| | 709-05.09 | MACHINED RIP-RAP (CLASS C) | TON | 136 |
| | | | | |
| 11 | 710-10.08 | 18" PERFORATED PLASTIC PIPE | L.F. | 47 |
| | 710-13.03 | FILTER CLOTH | S.Y. | 400 |
| | | | | |
| 12 | 712-01 | TRAFFIC CONTROL | LS | 1 |
| 13 | 712-02.02 | INTERCONNECTED PORTABLE BARRIER RAIL | L.F. | 400 |
| 14 | 712-02.36 | REMOVE AND RELOCATE PORTABLE BARRIER RAIL | L.F. | 190 |
| | 712-04.01 | FLEXIBLE DRUMS (CHANNELIZING) | EACH | 20 |
| | 712-06 | SIGNS (CONSTRUCTION) | S.F. | 190 |
| | 712-06.01 | VERTICAL PANELS | S.F. | 20 |
| | 712-08.03 | ARROW BOARD (TYPE C) | EACH | 1 |

## ESTIMATED ROADWAY QUANTITIES

| | ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|---|---|---|---|---|
| | 713-16.01 | CHANGEABLE MESSAGE SIGN | EACH | 3 |
| 15 | 713-16.20 | SIGNS (TN-19) | EACH | 4 |
| 16 | 713-16.21 | SIGNS (ROUTE MARKER ASSEMBLY) | EACH | 1 |
| 17 | 713-16.22 | SIGNS (ROUTE MARKER ASSEMBLY) | EACH | 1 |
| | | | | |
| 18 | 716-02.04 | PLASTIC PAVEMENT MARKING(CHANNELIZATION STRIPING) | S.Y. | 15 |
| 19 | 716-05.01 | PAINTED PAVEMENT MARKING (4" LINE) | L.M. | 0.3 |
| 19 | 716-05.02 | PAINTED PAVEMENT MARKING (8" BARRIER LINE) | L.F. | 550 |
| | 716-08.01 | REMOVAL OF PAVEMENT MARKING (LINE) | L.F. | 1100 |
| | 716-08.04 | REMOVAL OF PAVEMENT MARKING (CHANNEL. STRIPING) | S.Y. | 15 |
| 18 | 716-13.01 | SPRAY THERMO PVMT MRKNG (4IN LINE) | L.M. | 0.4 |
| | | | | |
| | 717-01 | MOBILIZATION | LS | 1 |
| | | | | |
| 20 | 740-10.03 | GEOTEXTILE (TYPE III)(EROSION CONTROL) | S.Y. | 1259 |
| 21 | 740-10.04 | GEOTEXTILE (TYPE IV)(EROSION CONTROL) | S.Y. | 1240 |
| | 740-11.03 | TEMPORARY SEDIMENT TUBE 18IN (DESCRIPTION) | L.F. | 1159 |
| | | | | |
| | 801-01.07 | TEMPORARY SEEDING (WITH MULCH) | UNIT | 48 |
| 22 | 801-02 | SEEDING (WITHOUT MULCH) | UNIT | 11 |
| | 801-03 | WATER (SEEDING AND SODDING) | M.G. | 18 |
| | | | | |
| | 803-01 | SODDING (NEW SOD) | S.Y. | 830 |
| | | | | |
| | 805-12.02 | EROSION CONTROL BLANKET (TYPE II) | S.Y. | 1121 |

FOOTNOTES

1. SEE SPECIAL NOTES ENVIRONMENTAL SHEET 2D.
2. TO BE USED FOR DRAINAGE ON BENCHES. SEE BENCH DETAIL SHEET 2A.
3. SEE SUBSECTION 209-07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT.
4. MAY BE INCREASED OR DECREASED BY THE TDOT SUPERVISOR.
5. INCLUDES 360 TONS FOR SR 41, 35 TONS FOR PVT. DRIVES AND 20 TONS FOR MAINTENANCE OF PVT. DRIVE.
6. INCLUDES 8 TONS FOR EROSION CONTROL AND 43 TONS FOR BENCH DRAINS.
7. THE 30" STEEL PIPE TO BE JACK AND BORED THROUGH EXISTING FILL. REFER TO SHEET 2E FOR NOTES CONCERNING JACKED AND BORE PIPE.
8. QUANTITY IS BASED ON MINIMUM CALCULATED LENGTH. ACTUAL LENGTH WILL BE DETERMINED BASED ON FIELD CONDITIONS ENCOUNTERED. THE BIDDER IS RESPONSIBLE FOR VERIFYING ESTIMATED LENGTHS PRIOR TO SUBMITTING HIS BID. ADDITIONAL LENGTH, IF ANY, REQUIRED BY ACTUAL FIELD MEASUREMENTS WILL BE INSTALLED AT NO ADDITIONAL COST. ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR THESE ITEMS.
9. FOR TEMPORARY CONSTRUCTION ENTRANCES AND HAUL ROADS.
10. INCLUDES 25 TONS FOR EROSION CONTROL AND 167 TONS FOR FRENCH DRAIN. SEE SHEET 2G FOR FRENCH DRAIN TABULATED QUANTITIES.
11. INCLUDES PIPE CORE MATERIAL. SEE DETAIL SHEET 2G, NOTES 1-3.
12. INCLUDES TRAFFIC CONTROL SUPERVISOR. SEE TDOT BUREAU OF HIGHWAYS "SPECIAL PROVISION REGARDING TRAFFIC CONTROL SUPERVISOR".
13. INCLUDES INSTALLATION AND REMOVAL.
14. EXISTING STEEL PORTABLE BARRIER RAIL OWNED BY TDOT. INCLUDES 2 ATTENUATORS. SEE SPECIAL NOTES "MISCELLANEOUS" SHEET 2E.
15. P8 POST REQUIRED.
16. M3-4, TN-6B, M6-1 AND U6 POST REQUIRED.
17. M4-5, M1-1, M6-1 AND U6 POST REQUIRED.
18. THE CONTRACTOR MAY ELECT TO SUBSTITUTE PREFORMED PLASTIC FOR THERMOPLASTIC. PREFORMED PLASTIC SHALL BE PAID FOR AT THE SAME UNIT PRICE AS BID FOR THERMOPLASTIC.
19. TO BE USED FOR TEMPORARY STRIPING.
20. INCLUDES 80 S.Y. FOR EROSION CONTROL; 963 S.Y. FOR HAUL ROADS; 216 S.Y. FOR RIP-RAP DITCHES.
21. INCLUDES 180 S.Y. FOR FRENCH DRAIN AND 1060 S.Y. FOR USE UNDER GRADED SOLID ROCK FILL.
22. TO BE AS DIRECTED BY THE T.D.O.T. SUPERVISOR.

**UNOFFICIAL SET**

**NOT FOR BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

ESTIMATED ROADWAY QUANTITIES

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Survey & Design Division

TENNESSEE D.O.T.
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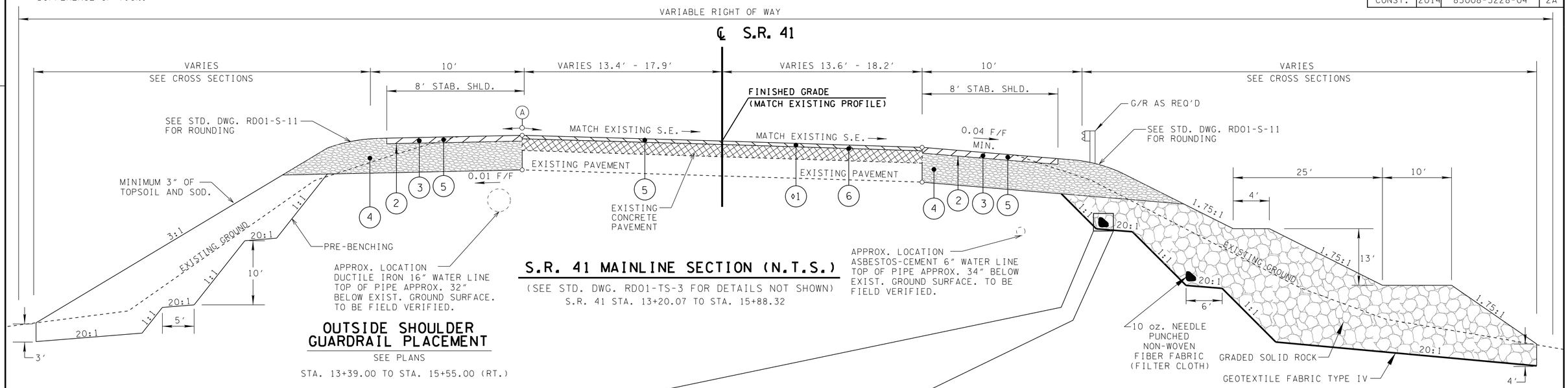
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 2 |
| CONST. | 2014 | 83008-3228-04 | 2A |

(A) THE SLOPE OF SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0%.

◊ IF SUBSURFACE PAVEMENT FAILURE IS EXPOSED AFTER MILLING, REMOVE AREA OF FAILURE TO SOUND PAVEMENT AND REPLACE WITH "B-M2" MIX ALSO USE AS NEEDED FOR LEVELING.




## S.R. 41 MAINLINE SECTION (N.T.S.)

(SEE STD. DWG. RD01-TS-3 FOR DETAILS NOT SHOWN)
S.R. 41 STA. 13+20.07 TO STA. 15+88.32

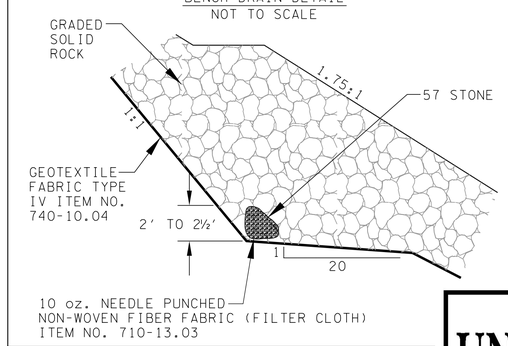
## OUTSIDE SHOULDER GUARDRAIL PLACEMENT

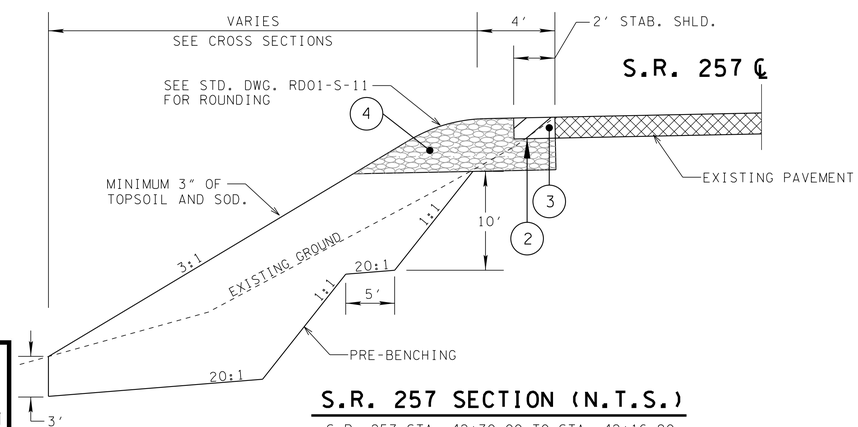
SEE PLANS
STA. 13+39.00 TO STA. 15+55.00 (RT.)

## PROPOSED PAVEMENT SCHEDULE

| | |
|---|---|
| ① | SURFACE AT 1.25" THICK (132.5 LBS/SQ. YD.)<br>ITEM NUMBER 411-01.10<br>ACS MIX (PG64-22) GRADING D |
| ② | PRIME COAT<br>ITEM NUMBER 402-01 - BITUMINOUS MATERIAL FOR PRIME COAT(0.35 GAL/SQ.YD.)<br>ITEM NUMBER 402-02 - AGGREGATE FOR COVER MATERIAL PRIME COAT (12 LBS/SQ.YD.) |
| ③ | SURFACE(SHOULDERS)AT 1.5" THICK(154.5 LBS/SQ.YD.)<br>ITEM NUMBER 411-01.07<br>ACS MIX (PG64-22) GRADING E SHOULDER |
| ④ | CRUSHED STONE BASE AT 10.0" THICK (SHOULDERS)<br>ITEM NUMBER 303-01<br>MINERAL AGGREGATE, TYPE A BASE, GRADING D |
| ⑤ | MILLING, THICKNESS VARIES 1.25" (TRAVEL LANE) TO 1.50" (SHOULDER)<br>ITEM NUMBER 503-01.01<br>MILLING CONCRETE PAVEMENT (SQ YD) |
| ⑥ | TACK COAT<br>ITEM NUMBER 403-01<br>BITUMINOUS MATERIAL FOR TACK COAT (0.10 GAL/SQ. YD.) |

BENCH DRAIN DETAIL
NOT TO SCALE



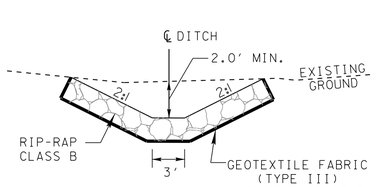




## S.R. 257 SECTION (N.T.S.)

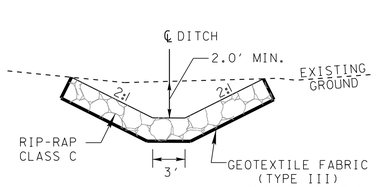
S.R. 257 STA. 42+70.00 TO STA. 42+16.90

**UNOFFICIAL SET**

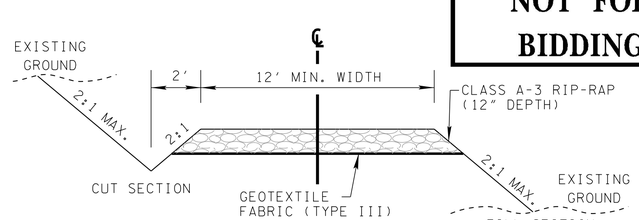
**NOT FOR BIDDING**




"T" RIP-RAP DITCH DETAIL
STA. 14+37.00 - 14+97.00 RT (110')




"T" RIP-RAP DITCH DETAIL
STA. 14+26.00 -14+32.00 RT (50')



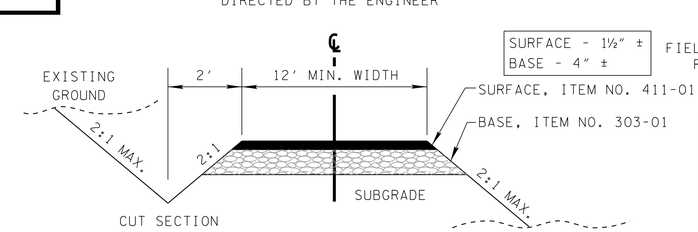

## TYPICAL SECTION

HAUL ROAD

SEE TDOT STD. DWG. EC-STR-25 (TEMPORARY CONSTRUCTION EXIT) FOR MORE DETAILS.

NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER

NOTE: DITCH TO BE CONSTRUCTED WHERE DIRECTED BY THE ENGINEER




## TYPICAL SECTION

PRIVATE DRIVE TO RESIDENTIAL PROPERTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# TYPICAL SECTIONS AND PAVING SCHEDULE

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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2B |

# GENERAL NOTES

## GRADING

(1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE 0F THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.

(2) CERTIFICATION FOR ALL BORROW PITS MUST BE OBTAINED IN ACCORDANCE WITH SUBSECTION 107.06 OF THE STANDARD SPECIFICATIONS.

(3) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

## SEEDING AND SODDING

(1) SOD SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS TO PREVENT DAMAGE TO ADJACENT FACILITIES AND PROPERTY DUE TO EROSION ON ALL NEWLY GRADED CUT AND FILL SLOPES AS WORK PROGRESSES.

(2) ITEM NO. 801-02, SEEDING (WITHOUT MULCH) AND EROSION CONTROL BLANKET , SHALL BE PLACED AT LOCATIONS SHOWN ON THE PLANS AS WELL AS LOCATIONS DIRECTED BY THE ENGINEER.

## GUARDRAIL

(1) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(2) THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.

(3) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

(4) GUARDRAIL IS TO BE COMPLETE IN PLACE BEFORE THE MAINLINE ROADWAY IS OPENED TO TRAFFIC.

## DRAINAGE

(1) THE CONTRACTOR SHALL SHAPE DITCHES TO THE SPECIFIED DESIGN. THIS WORK WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

(2) WHERE A CULVERT (PIPE, SLAB OR BOX) IS MOVED TO A NEW LOCATION OTHER THAN THAT SHOWN ON THE PLANS, INCREASING OR DECREASING THE AMOUNT OF CULVERT EXCAVATION, NO INCREASE OR DECREASE IN THE AMOUNT OF PAYMENT WILL BE MADE DUE TO SUCH CHANGE.

(3) DURING CONSTRUCTION OF DRAINAGE STRUCTURES ALL COST ASSOCIATED WITH MAINTAINING THE FLOW OF WATER AND TRAFFIC, AT THESE STRUCTURES, DURING THE PHASED CONSTRUCTION OF THIS PROJECT ARE TO BE INCLUDED IN THE UNIT PRICE OF THE DRAINAGE STRUCTURES AND TRAFFIC CONTROL ITEMS.

## UTILITIES

(1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

(2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

(3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

(5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

## MISCELLANEOUS

(1) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

## RIGHT - OF – WAY

(1) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(2) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(3) ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

## PAVEMENT MARKINGS

## TEMPORARY PAVEMENT MARKING ON INTERMEDIATE LAYERS

(1) TEMPORARY PAVEMENT LINE MARKINGS ON INTERMEDIATE LAYERS OF PAVEMENT SHALL BE REFLECTIVE TAPE OR REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAYS WORK. SHORT, UNMARKED SECTIONS SHALL NOT BE ALLOWED. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01, PAINTED PAVEMENT MARKING (4" LINE), L.M.

## FINAL PAVEMENT MARKING

(1) PERMANENT PAVEMENT LINE MARKINGS SHALL BE 4" SPRAY THERMOPLASTIC (60 mil) INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-13.01, SPRAY THERMO PVMT MRKNG (60 mil) (4IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

## DETOURS, LANE SHIFTS AND MEDIAN CROSS-OVERS

(2) THE PAVEMENT MARKING ON THE LANE SHIFTS FOR CENTERLINE, EDGELINE AND LANE LINES WILL BE INSTALLED AND MAINTAINED TO THE SAME STANDARDS AS FOR PERMANENT MARKINGS ON THE MAIN ROADWAY. THESE MARKINGS SHALL BE IN PLACE PRIOR TO ALLOWING TRAFFIC ONTO THE PAVEMENT. THESE PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-05.01 LIN. MI.

(3) BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM 712-09.01 REMOVABLE PAVEMENT MARKING LINE, LIN. FT. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01 TRAFFIC CONTROL, LUMP SUM.

## PAVEMENT

## PAVING

(1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.

(2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.

## RESURFACING

(1) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

(2) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.

(3) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

## GRADED SOLID ROCK

(1) THE ROCK FILL (GRADED SOLID ROCK) MATERIAL SHALL CONSIST OF SOUND, NON-DEGRADABLE LIMESTONE OR SANDSTONE WITH A MAXIMUM SIZE OF 3'-0". AT LEAST 50% (BY WEIGHT) OF THE ROCK SHALL BE UNIFORMLY DISTRIBUTED BETWEEN 1'-0" AND 3'-0" IN DIAMETER, AND NO GREATER THAN 10% (BY WEIGHT) SHALL BE LESS THAN 2" IN DIAMETER. THE MATERIAL SHALL BE ROUGHLY EQUIDIMENSIONAL; THIN, SLABBY MATERIALS WILL NOT BE ACCEPTED. THE CONTRACTOR SHALL BE REQUIRED TO PROCESS THE MATERIAL WITH AN ACCEPTABLE MECHANICAL MEANS (A SCREENING PROCESS CAPABLE OF PRODUCING THE REQUIRED GRADATION). THE ROCK SHALL BE APPROVED BY A REPRESENTATIVE OF THE DIVISION OF MATERIALS AND TESTS BEFORE USE.

(2) THIS GRADED SOLID ROCK MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING FIVE FEET IN DEPTH.

## SIGNING

(1) THE TOP OF THE SIGN FOOTINGS SHALL BE PLACED LEVEL WITH THE GROUND LINE.

(2) AFTER THE SIGN LOCATIONS HAVE BEEN STAKED, BUT PRIOR TO ORDERING ANY MATERIAL FOR THE SUPPORTS, THERE SHALL BE A FIELD INSPECTION AND APPROVAL BY THE REGIONAL CONSTRUCTION OFFICE.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL NOTES

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2C |

(3) ALL SIGNS MARKED "TO BE REMOVED" ARE TO BE REMOVED BY THE CONTRACTOR AND PAID FOR UNDER ITEM 713-15 AND BECOME THE PROPERTY OF THE CONTRACTOR.

(4) THE EXISTING FOOTINGS ARE TO BE REMOVED 6 INCHES BELOW GROUND LINE.

(5) THE LENGTHS OF ALL SIGN SUPPORTS SHOWN ON THE SIGN SCHEDULE ARE APPROXIMATE AND ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY ALL SUPPORT LENGTHS AT THE SITE PRIOR TO ERECTION.

(6) THE LETTERS, DIGITS, ARROWS, BORDERS, AND ALPHABET ACCESSORIES ON ALL FLAT SHEET SIGNS SHALL BE APPLIED BY SILK SCREENING PROCESS.

## CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

(1) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.

(2) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.

(3) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.

(4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

(5) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(6) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.

(7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

## EROSION PREVENTION AND SEDIMENT CONTROL

### DISTURBED AREA

(1) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.

(2) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS INSTALLED.

(3) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

(4) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.

(5) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.

(6) NO MORE THAN 50 ACRES OF ACTIVE SOIL DISTURBANCE IS ALLOWED AT ANY TIME DURING THE CONSTRUCTION OF THE PROJECT. OFF-SITE BORROW OR WASTE AREAS ARE TO BE INCLUDED IN THE TOTAL DISTURBED AREA IF THE BORROW OR WASTE AREA IS EXCLUSIVE TO THE PROJECT PER TDOT'S WASTE AND BORROW MANUAL.

### SEDIMENT CONTROL

(7) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS, AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.

(8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFF-SITE MIGRATION OR DEPOSIT OF SEDIMENT ON ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE SETTLED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.

(9) WATER PUMPED FROM WORK AREAS AND EXCAVATION MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE INTO SURFACE WATERS. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED. TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL- VEGETATED OR LINED CHANNEL, SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

(10) CHECK DAMS SHALL BE USED WHERE RUNOFF IS CONCENTRATED. CLEAN ROCK, BRUSH, GABION, OR SANDBAG CHECK DAMS SHALL BE PROPERLY CONSTRUCTED TO REDUCE VELOCITY AND CONTROL EROSION.

(11) IF PERMANENT OR TEMPORARY VEGETATION IS TO BE USED AS AN EPSC MEASURE, THEN THE TIMING OF PLANTING OF VEGETATION SHALL BE SHOWN IN THE SWPPP. DELAYING PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED, IF POSSIBLE.

(12) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.

(13) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.

### STREAM/WETLAND

(14) SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT WATER QUALITY MUST BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS IN ACCORDANCE WITH TDOT STANDARDS. THEY MUST BE INSTALLED ON THE CONTOUR, ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.

(15) INSTREAM EPSC DEVICES REQUIRE THE ENVIRONMENTAL DIVISION'S PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN TDEC, USACE, AND TVA PERMITS.

(16) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A), IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.

(17) THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING.

(18) STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CROSSINGS MUST BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES MUST BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK MUST BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS MUST BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO THEIR PREEXISTING ELEVATION. ALL TEMPORARY CROSSINGS MUST BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION.

### SPECIES

(19) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA. THE SWPPP SHALL BE MODIFIED TO INCLUDE EPSC MEASURES TO PREVENT NEGATIVE IMPACTS TO LEGALLY PROTECTED STATE OR FEDERAL FAUNA OR FLORA OR AS INDICATED IN THE ECOLOGICAL STUDIES OR ON THE PERMIT(S).

### INSPECTION, MAINTENANCE, REPAIR

(20) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.

(21) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES/STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.

(22) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND BE TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR ITEM NO. 209-05 SEDIMENT REMOVAL, C.Y.

(23) THE CONTRACTOR SHALL INSTALL A RAIN GAUGE EVERY LINEAR MILE AT ALL SITES WHERE CLEARING, GRUBBING, EXCAVATION, GRADING CUTTING OR FILLING IS BEING ACTIVELY PERFORMED, OR EXPOSED SOIL HAS NOT YET BEEN PERMANENTLY STABILIZED. IF THE PROJECT LENGTH IS LESS THAN ONE LINEAR MILE, ONE RAIN GAUGE SHALL BE INSTALLED AT THE CENTER OF THE PROJECT OR AS INDICATED BY THE TDOT EPSC INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT EACH GAUGE IS MAINTAINED IN GOOD WORKING CONDITION. TDOT AND/OR THE CONTRACTOR SHALL RECORD DAILY PRECIPITATION AND FORECASTED PERCENTAGE OF PRECIPITATION IN DETAILED RECORDS OF RAINFALL EVENTS INCLUDING DATES, AMOUNTS OF RAINFALL PER GAUGE, THE ESTIMATED DURATION (OR STARTING AND ENDING TIMES), AND FORECASTED PERCENTAGE OF PRECIPITATION FOR THE PROJECT. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER ON A MONTHLY BASIS. THE COST FOR THE RAIN GAUGES IS TO BE INCLUDED IN THE UNIT BID PRICES FOR OTHER ITEMS. RAIN GAUGES SHALL BE AS SPECIFIED IN THE APPROVED TDOT RAINFALL MONITORING PLAN.

**UNOFFICIAL SET**

**NOT FOR BIDDING**

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL NOTES

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2D |

(24) INSPECTION OF EPSC MEASURES SHALL BE DONE AT LEAST TWICE PER CALENDAR WEEK AT LEAST 72 HOURS APART. A CALENDAR WEEK IS DEFINED AS SUNDAY THROUGH SATURDAY. QUALITY ASSURANCE/QUALITY CONTROL SITE ASSESSMENT OF EPSC SHALL BE PERFORMED PER THE TDOT ENVIRONMENTAL DIVISION'S COMPREHENSIVE INSPECTION OFFICE GUIDELINES.

(25) OUTFALL POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO SURROUNDING WATERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWNSTREAM LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE ROADWAY SEDIMENT TRACKING.

(26) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE TIMEFRAME, WRITTEN DOCUMENTATION MUST BE PROVIDED IN THE FIELD BOOK AND AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.

(27) THE TDOT PROJECT SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S SITE SUPERINTENDENT ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT PROJECT SUPERVISOR OR THEIR DESIGNEE WILL COMPLETE THE INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.

### MATERIALS

(28) WASTE AND BORROW AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN. BORROW AND WASTE DISPOSAL AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY AN ARAP, 404, OR NPDES PERMIT, OBTAINED SOLELY BY THE CONTRACTOR.

### SWPPP, PERMITS, PLANS, RECORDS

(29) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

(30) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROOADWAY DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.

(31) THE FOLLOWING INFORMATION SHALL BE MAINTAINED ON OR NEAR THE SITE: DATES THAT MAJOR GRADING ACTIVITIES OCCUR, DATES WHERE CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE, DATES WHEN STABILIZATION MEASURES ARE INITIATED, EPSC INSPECTION RECORDS, QUALITY ASSURANCE SITE ASSESSMENT RECORDS, PRECIPITATION RECORDS, SWPPP, PROJECT ENVIRONMENTAL PERMITS, AND A COPY OF THE PROJECT EPSC INSPECTOR'S TDEC LEVEL 1 CERTIFICATION.

(32) ALL WATER QUALITY AND STORM WATER PERMITS, INCLUDING A COPY OF THE NOC WITH NPDES PERMIT TRACKING NUMBER AND THE LOCATION OF THE SWPPP, SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BREIF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

(33) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROOADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

(34) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY. THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED WHEN MAJOR DESIGN REVISIONS ARE REQUESTED BY CONSTRUCTION. THE ENVIRONMENTAL DIVISION MAY BE CONTACTED FOR GUIDANCE ON SPECIFIC SWPPP NEEDS. A COPY OF ANY CORRESPONDENCE REGARDING THE EFFECTIVENESS OF THE SWPPP OR EPSC CONTROLS SHALL BE RETAINED IN THE SWPPP.

(35) THE SWPPP SHALL BE UPDATED BY CONSTRUCTION WHENEVER A CHANGE IN CHEMICAL TREATMENT METHODS IS MADE INCLUDING USE OF A DIFFERENT CHEMICAL, DIFFERENT DOSAGE OR APPLICATION RATE, OR A DIFFERENT AREA OF APPLICATION.

(36) IF A TMDL IS DEVELOPED FOR THE RECEIVING WATERS FOR A POLLUTANT OF CONCERN (SILTATION AND/OR HABITAT ALTERATION) THE SWPPP SHALL BE MODIFIED OR UPDATED.

(37) PROJECT INSPECTORS AND SUPERVISORS (INCLUDING TDOT STAFF, CONSULTANTS AND CONTRACTOR STAFF) RESPONSIBLE FOR THE IMPLEMENTATION AND MAINTENANCE OF EPSC PLANS SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 - FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. A COPY OF CERTIFICATION RECORDS FOR THE COURSES SHALL BE KEPT ON SITE AND AVAILABLE UPON REQUEST.

### LITTER, DEBRIS, WASTE, PETROLEUM

(38) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.

(39) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

## SPECIAL NOTES

### GRADING

(1) THE GRADING TABULATIONS AND RESULTING EARTHWORK ASSOCIATED BID QUANTITIES WERE PREPARED UTILIZING AVAILABLE GEOTECHNICAL INFORMATION AND/OR REPORTS PREPARED FOR THIS PROJECT. THIS INFORMATION IS PROVIDED FOR GENERAL INFORMATION AND ESTIMATION GUIDANCE ONLY.

(2) BORING DEPICTIONS SHOWN ON THE FOUNDATION DATA SHEETS, SOILS SHEETS, PLANS, AND CROSS-SECTIONS INDICATE SOIL AND ROCK CONDITIONS AT THE SPECIFIC BORING LOCATIONS. ANY SOIL PROFILE AND/OR ROCK LINE IS INTERPRETIVE BASED ON THE JUDGMENT OF THE GEOTECHNICAL ENGINEER/GEOLOGIST. THE TRANSITION BETWEEN BORINGS AND LAYERS MAY VARY SIGNIFICANTLY DEPENDING ON THE GEOLOGIC FORMATIONS ENCOUNTERED.

(3) TO ASSIST IN BID PREPARATION FOR EARTHWORK AND FOUNDATION CONSTRUCTION, DETAIL ROCK AND SOIL DESCRIPTION AND ON SOME PROJECTS, ROCK CORE SAMPLES ARE AVAILABLE FOR INSPECTION AT THE MATERIALS AND TESTS HEADQUARTERS AT 6601 CENTENNIAL BOULEVARD, NASHVILLE, TN OR AT THE TDOT REGION 3 BUILDING IN NASHVILLE, TN.

(4) THE CONTRACTOR SHALL UTILIZE ALL INFORMATION PROVIDED IN THE PLANS, CROSS-SECTIONS AND CONTRACT DOCUMENTS INCLUDING ANY SPECIAL PROVISIONS AS WELL AS UTILIZING HIS PAST EXPERIENCE WITH PROJECTS OF SIMILAR NATURE, SCOPE AND LOCATION IN PREPARATION OF HIS BID FOR EARTHWORK ITEMS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND PROVIDE EQUIPMENT AND MEANS NECESSARY TO CONDUCT THE EXCAVATION ACTIVITIES IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.

(5) EARTHWORK IS PAID FOR UNDER ITEM 203-01, ROAD AND DRAINAGE EXCAVATION (UNCLASSIFIED). NO ADDITIONAL PAYMENT WILL BE MADE FOR EARTHWORK QUANTITIES BASED SOLELY ON A CLAIM THAT THE QUANTITIES SHOWN IN THE GRADING TABULATION OR ELSEWHERE IN THE PLANS ARE INACCURATE WITH RESPECT TO THE TYPE OF MATERIALS ENCOUNTERED DURING CONSTRUCTION EXCEPT AS PROVIDED FOR BY SECTION 104.02 IN THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OR AS AMENDED IN SUPPLEMENTAL SPECIFICATIONS.

### SEEDING AND SODDING

(1) SOD SHALL BE PLACED ON ALL SLOPES ON THE LEFT AND PAID FOR UNDER ITEM NO. 803-01.

(2) SEEDING (WITHOUT MULCH) (ITEM 201-02) AND EROSION CONTROL BLANKET (TYPE II)(ITEM 805-12.02) SHALL BE PLACED ON ALL SLOPES ON THE RIGHT THAT ARE NOT STABILIZED WITH GRADED SOLID ROCK, RIP-RAP AND PERMANENT HAUL ROADS.

### PAVEMENT RESURFACING

(1) TRAFFIC WILL BE ALLOWED TO TEMPORARILY DRIVE ON THE MILLED SURFACE OF THE ROADWAY UNDER THE FOLLOWING CONDITIONS ONLY:

A. THE MILLED SURFACE IS FINE TEXTURED. THE FINE TEXTURE SHALL BE OBTAINED BY A MILLING MACHINE UTILIZING A MILLING HEAD WITH TEETH SPACING 3/8" OR LESS OPERATING AT LESS THAN 80 FEET PER MINUTE.

B. THE SURFACE SHALL BE SWEPT AND CLEANED OF ALL LOOSE MATERIALS.

C. THE DIFFERENCE IN ELEVATION BETWEEN THE MILLED SURFACE AND THE ADJACENT LANE SHALL NOT EXCEED 1 1/2 INCHES.

D. THE MILLED SURFACE SHALL BE PAVED WITHIN 48 HOURS.

E. RAIN OR INCLEMENT WEATHER IS NOT EXPECTED OR FORECASTED WITHIN 48 HOURS AFTER MILLING.

F. ALL APPLICABLE SIGNING IS INSTALLED IN ACCORDANCE WITH THE MUTCD SIGNING SHALL INCLUDE MOTORCYCLE WARNING SIGNS (TN-64) PLACED IN ADVANCE OF ANY MILLED AREAS.

G. IF RAVELING OR DETERIORATION OF THE MILLED SURFACE IS OCCURRING WHILE TRAFFIC IS DRIVING ON THE MILLED SURFACE, THEN THIS PRACTICE WILL NOT BE ALLOWED AND PAVING SHALL BE COMPLETED IMMEDIATELY AFTER MILLING.

H. ONLY ONE LANE IN EACH DIRECTION SHALL HAVE A MILLED SURFACE AT ONE TIME.

### EROSION PREVENTION AND SEDIMENT CONTROL

### NPDES

(1) REFER TO THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN, SHEET 7, FOR NOTES REGARDING SEASONAL WORK LIMITATION OR LIMITATION ON THE TOTAL AREA OF EXPOSED SOIL.

### ENVIRONMENTAL

(1) THE CONTRACTOR SHALL REMOVE ALL TRASH, LITTER, CONCRETE DEBRIS, ETC. FROM THE R.O.W. AND CONSTRUCTION EASEMENTS AREAS AND SHALL BE PAID FOR UNDER PAY ITEM 202-01.03 "REMOVAL OF TRASH AND DEBRIS".

(2) THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED TRASH, LITTER, CONCRETE DEBRIS IN AN APPROVED SITE PER ALL LOCAL, STATE AND FEDERAL REGULATIONS.

(3) THE CONCRETE DEBRIS SHALL NOT BE USED AS FILL MATERIAL FOR THE PROJECT.

(4) THE CONTRACTOR SHALL REMOVE ALL TRASH, LITTER, DEBRIS, ETC. WITHIN THE STREAM CHANNEL AND BANKS FROM THE 30-INCH PIPE OUTLET HEADWALL TO THE "DEBRIS DAM" LOCATED APPROXIMATELY 35-40 FEET DOWN GRADIENT. THE "DEBRIS DAM" SHALL BE REMOVED FROM THE STREAM CHANNEL AND BANKS.

UNOFFICIAL SET
NOT FOR BIDDING

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

GENERAL & SPECIAL NOTES

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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2E |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

## UTILITIES

(1) THE CONTRACTOR SHALL COORDINATE WITH CHRISTOPHER "ROY" DILL, WHITE HOUSE UTILITY DISTRICT (WHUD) 615-672-1014, PRIOR TO BEGINNING ANY WORK (INCLUDING CUT, FILL, HAUL ROAD CONSTRUCTION, ETC.) IN THE VICINITY OF THE EXISTING WATER LINES.

(2) THE 16-INCH WATER LINE IS A HIGH PRESSURE MAIN, THEREFORE THE CONTRACTOR SHALL TAKE ANY MEASURE NECESSARY TO PROTECT THE 16-INCH AND 6-INCH WATER MAINS DURING CONSTRUCTION.

## MISCELLANEOUS

(1) THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT SUPERVISOR TO REMOVE, TRANSPORT AND DELIVER THE EXISTING STEEL PORTABLE BARRIER AND ATTENUATORS TO THE TDOT REGION 3 OFFICES LOCATED AT 6630 CENTENNIAL BOULEVARD, NASHVILLE, TN AND SHALL BE PAID FOR UNDER PAY ITEM 712-02.36 "REMOVE AND RELOCATE PORTABLE BARRIER RAIL".

## JACK AND BORE (J&B)

### J&B PIPE

(1) THE PIPE USED FOR THE JACK AND BORE (J&B) SHALL CONSIST OF THE FOLLOWING:

A. STEEL GRADE A709 GRADE 36 OR EQUIVALENT
B. MINIMUM WALL THICKNESS OF 0.50-INCHES
C. MINIMUM TENSILE STRENGTH (F-u) OF 45 KSI
D. MINIMUM YIELD STRENGTH (F-y) OF 35 KSI

(2) ALL STEEL PIPE MAY BE BARE INSIDE AND OUT, WITH THE MANUFACTURER'S RECOMMENDED MINIMUM NOMINAL WALL THICKNESSES TO MEET THE GREATER OF EITHER INSTALLATION, LOADING OR CARRIER REQUIREMENTS.

(3) ALL STEEL PIPE MUST BE SQUARE CUT AND HAVE LENGTHS WHICH ARE COMPATIBLE WITH THE J&B EQUIPMENT.

(4) THE CONTRACTOR SHALL ENSURE THAT STEEL PIPE OF INSUFFICIENT LENGTH ACHIEVES THE REQUIRED LENGTH THROUGH FULLY WELDED JOINTS AROUND CIRCUMFERENCE OF PIPE WITH COMPLETE PENETRATION WELD. ENSURE THAT JOINTS ARE CONTINUOUS OVER THE ENTIRE CIRCUMFERENCE OF THE PIPE WITH A BEAD EQUAL TO OR EXCEEDING THE MINIMUM OF EITHER THAT REQUIRED TO MEET THE THICKNESS CRITERIA OF THE PIPE WALL FOR JACKING AND LOADING.

### SITE CONDITIONS

(5) THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION FOR ENTRY AND EXIT BORING PITS, RECOVERY PITS, AUGER SLURRY SUMP PITS, OR ANY OTHER EXCAVATION AS NEEDED AND AS APPROVED BY THE ENGINEER. SUMP PITS ARE REQUIRED TO CONTAIN AUGER FLUIDS IF VACUUM DEVICES ARE NOT OPERATED THROUGHOUT THE BORING OPERATION. THE COST OF INSTALLING AND RECLAIMING ALL PITS IS TO BE INCLUDED IN THE COST OF THE J&B.

(6) THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT THE PIPE INSTALLED BY J&B METHOD WILL BE AT THE PROPER ALIGNMENT AND GRADE.

(7) THE J&B OF PIPES UNDER EXISTING HIGHWAYS SHALL BE ACCOMPLISHED WITHOUT JETTING, SLUICING, OR WETBORING.

(8) JACKING PITS EXCAVATED ADJACENT TO ROADWAYS SHALL BE PERFORMED IN A MANNER TO ADEQUATELY SUPPORT THE ROADS, OPERATING PITS AND OTHER APPURTENANCES. ADEQUATE BRACING, SHORING, SHEETING OR OTHER SUPPORTS SHALL BE INSTALLED AS NEEDED TO ENSURE THAT WORK PROCEEDS SAFELY AT NO ADDITIONAL COSTS TO THE DEPARTMENT.

(9) THE CONTRACTOR SHALL INSTALL SUITABLE REACTION BLOCKS FOR THE JACKS AS REQUIRED.

(10) JACKING OPERATIONS SHALL BE CONTINUOUS AND PRECAUTIONS SHALL BE TAKEN TO AVOID INTERRUPTIONS THAT MIGHT CAUSE THE PIPE TO "FREEZE" IN PLACE. UPON COMPLETION OF JACKING OPERATIONS, THE REACTION BLOCKS, BRACES AND ALL OTHER ASSOCIATED CONSTRUCTION MATERIALS SHALL BE COMPLETELY REMOVED FROM THE SITE.

(11) APPROPRIATE BARRICADES SHALL BE PROVIDED IF PITS ARE OPEN OVERNIGHT. EXCAVATION SHALL BE COMPLETELY ENCLOSED WITH BARRICADES.

(12) WITHIN 48 HOURS OF COMPLETING INSTALLATION OF THE BORING PRODUCT, THE CONTRACTOR SHALL ENSURE THAT THE WORK SITE IS CLEANED OF ALL EXCESS AUGER FLUIDS OR SPOILS. REMOVAL AND FINAL DISPOSITION OF EXCESS FLUIDS OR SPOILS IS THE RESPONSIBILITY OF THE BORING CONTRACTOR AND ENSURE THAT THE WORK SITE IS RESTORED TO PRE-CONSTRUCTION CONDITIONS.

(13) THE CONTRACTOR SHALL INVESTIGATE ALL SITES FOR POSSIBILITY OF HAVING TO MANAGE GROUNDWATER AND STORMWATER PROBLEMS THAT MAY OCCUR DUE TO SEASONAL CHANGES OR NATURAL CONDITIONS. WHEN GROUND WATER LEVEL MUST BE CONTROLLED, USE A SYSTEM AND EQUIPMENT THAT IS COMPATIBLE WITH THE PROPERTIES, CHARACTERISTICS, AND BEHAVIOR OF THE SOILS TO KEEP WORK DEWATERED AT ALL TIMES. THE COST OF DEWATERING/FILTERING GROUNDWATER AND/OR STORMWATER IS TO BE INCLUDED IN THE COST OF THE J&B.

(14) THE CONTRACTOR SHALL TAKE RESPONSIBILITY FOR RESTORING ANY DAMAGE CAUSED BY HEAVING, SETTLEMENT, SEPARATION OF PAVEMENT, ESCAPING BORING FLUID (FRACOUT) OF THE J&B OPERATION AT NO COST TO THE DEPARTMENT.

(15) WHEN REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE DETAILED PLANS WHICH SHOW HOW DAMAGE TO ANY ROADWAY FACILITY WILL BE REMEDIED. WHEN REMEDIATION PLANS ARE REQUIRED, THEY MUST BE APPROVED BY THE ENGINEER BEFORE ANY WORK PROCEEDS.

(16) THE CONTRACTOR SHALL USE A MIXTURE OF BENTONITE CLAY OR OTHER APPROVED STABILIZING AGENT MIXED WITH POTABLE WATER WITH A MINIMUM PH OF 6.0 TO CREATE THE DRILLING FLUID FOR LUBRICATION AND SOIL STABILIZATION. VARY THE FLUID VISCOSITY TO BEST FIT THE SOIL CONDITIONS ENCOUNTERED. DO NOT USE OTHER CHEMICALS OR POLYMER SURFACTANT IN THE DRILLING FLUID WITHOUT WRITTEN CONSENT OF THE ENGINEER. CERTIFY IN WRITING TO THE ENGINEER THAT ANY CHEMICALS TO BE ADDED ARE ENVIRONMENTALLY SAFE AND NOT HARMFUL OR CORROSIVE TO THE PIPE. IDENTIFY THE SOURCE OF WATER FOR MIXING THE DRILLING FLUID. APPROVALS AND PERMITS ARE REQUIRED FOR OBTAINING WATER FROM SUCH SOURCES AS STREAMS, RIVERS, PONDS OR FIRE HYDRANTS. ANY WATER SOURCE USED OTHER THAN POTABLE WATER MAY REQUIRE A PH TEST.

(17) THE CONTRACTOR SHALL MONITOR THE PUMPING RATE, PRESSURES, VISCOSITY AND DENSITY OF THE BORING FLUIDS TO ENSURE ADEQUATE REMOVAL OF SOIL CUTTINGS AND THE STABILITY OF THE BOREHOLE.

(18) THE CONTRACTOR SHALL CONTAIN EXCESS DRILLING FLUIDS, SLURRY AND SOIL CUTTINGS AT ENTRY AND EXIT POINTS IN PITS UNTIL THEY ARE RECYCLED OR REMOVED FROM THE SITE AND ENSURE THAT ALL BORING FLUIDS ARE DISPOSED OF OR RECYCLED IN A MANNER ACCEPTABLE TO THE APPROPRIATE LOCAL, STATE OR FEDERAL REGULATORY AGENCIES. REMOVE ANY EXCESS MATERIAL UPON COMPLETION OF THE BORE. IF IT BECOMES EVIDENT THAT THE SOIL IS CONTAMINATED, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY. DO NOT CONTINUE BORING WITHOUT THE ENGINEER'S APPROVAL.

(19) IF AN OBSTRUCTION IS ENCOUNTERED WHICH PREVENTS COMPLETION OF THE INSTALLATION IN ACCORDANCE WITH THE DESIGN LOCATION AND SPECIFICATIONS; THE PIPE MAY BE TAKEN OUT OF SERVICE AND LEFT IN PLACE AT THE DISCRETION OF THE ENGINEER. THE CONTRACTOR SHALL IMMEDIATELY FILL THE PRODUCT LEFT IN PLACE WITH EXCAVATABLE FLOWABLE FILL AT THE CONTRACTOR'S EXPENSE, SUBMIT A NEW INSTALLATION PROCEDURE AND REVISED PLANS TO THE ENGINEER FOR APPROVAL BEFORE RESUMING WORK AT ANOTHER LOCATION. IF DAMAGE IS OBSERVED TO ANY PROPERTY, THE CONTRACTOR SHALL CEASE ALL WORK UNTIL A PLAN OF ACTION TO MINIMIZE FURTHER DAMAGE AND RESTORE DAMAGED PROPERTY IS SUBMITTED AND APPROVED BY THE ENGINEER.

### J&B MEASUREMENT AND PAYMENT

(20) THE METHOD OF MEASUREMENT WILL BE THE ACTUAL LENGTH OF THE INSTALLATION, MEASURED IN PLACE ALONG THE SURFACE OF THE GROUND, COMPLETE AND ACCEPTED. NO ADDITIONS OR DEDUCTIONS WILL BE MADE FOR SWEEPS IN EITHER THE VERTICAL OR HORIZONTAL DIRECTION TO COMPLETE THE INSTALLATION.

(21) PRICE AND PAYMENT WILL BE FULL COMPENSATION FOR ALL WORK AND MATERIALS REQUIRED TO COMPLETE THE WORK SPECIFIED INCLUDING BUT NOT LIMITED TO FURNISHING AND INSTALLING PIPE, FROM PLAN POINT OF BEGINNING TO PLAN POINT OF ENDING AT PLAN DEPTH, PITS, GROUT, DEWATERING, REMOVAL OF EXCAVATED MATERIALS AND SPOILS, REMOVAL AND DISPOSAL OF DRILLING FLUIDS, BACKFILLING, AND COMPLETE RESTORATION OF THE SITE.

(22) NO PAYMENT WILL BE MADE FOR FAILED BORE PATHS, INJECTION OF EXCAVATABLE FLOWABLE FILL, PRODUCTS TAKEN OUT OF SERVICE OR INCOMPLETE INSTALLATIONS.

(23) PAYMENT WILL BE MADE UNDER ITEM NO. 607-06.06 30" PIPE CULVERT (JACK-IN-PLACE) PER LINEAR FOOT.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SPECIAL NOTES

6/18/2014 7:46:37 AM
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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 2F |

## CROSS DRAIN TABULATION

| STATION | RCP CLASS III 607-06.02 (L.F.) FILL HEIGHT < OR = 18 FT. | (JACKED-IN-PLACE) 607-60.13 (L.F.) | SKEW | END TREATMENT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | INLET | | | OUTLET | | | |
| | 30" | 30" | | TYPE | DRAWING NO. | 30 IN ENDWALL 611-07.60 (EACH) | TYPE | DRAWING NO. | CLASS A CONC. 611-07.01 (C.Y.) | REINF. STEEL 611-07.02 (LB.) |
| 13+98.91 | 60 | 128 | 75° RT | U | D-PE-30A | 1 | B | D-PE-9 | 2.33 | 260 |
| **TOTALS** | **60** | **128** | | | | **1** | | | **2.33** | **260** |

## R.O.W. MARKERS

| SHEET NO. | QUANTITIES | | | |
|---|---|---|---|---|
| | "A" | "B" | "C" | TOTALS |
| 4 | 1 | 2 | 3 | **6** |
| **TOTALS** | **1** | **2** | **3** | **6** |

## EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES

| ITEM NO. | DESCRIPTION | UNIT | QUANTITY |
|---|---|---|---|
| 209-05 | SEDIMENT REMOVAL | C.Y. | 37 |
| 209-08.02 | TEMPORARY SILT FENCE (WITH BACKING) | L.F. | 176 |
| 209-08.07 | ROCK CHECK DAM PER | EACH | 19 |
| 209-08.08 | ENHANCED ROCK CHECK DAM | EACH | 7 |
| 209-09.01 | SANDBAGS | BAG | 29 |
| 303-10.01 | S7 STONE | TON | 8 |
| 621-03.02 | 18" TEMPORARY DRAINAGE PIPE (DIVERSION) | L.F. | 139 |
| 709-05.05 | MACHINED RIP-RAP (CLASS A-3) | TON | 758 |
| 709-05.06 | RIP-RAP (CLASS A-1) | TON | 25 |
| 740-10.03 | GEOTEXTILE (TYPE III)(EROSION CONTROL) | S.Y. | 1043 |
| 740-11.03 | TEMP. SEDIMENT TUBE 18" | L.F. | 1159 |
| 805-12.02 | EROSION CONTROL BLANKET (TYPE II) | S.Y. | 1121 |

## SIDE DRAIN TABULATION

| STATION | LOCATION | | DESCRIPTION | RCP CLASS III OR CMP 16 GA. OR HDPE OR PVC OR SRTRP (L.F.) FILL HEIGHT < OR = 10 FT. | | | | END TREATMENT | | | | | | | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | INLET | | | OUTLET | | | | |
| | LT | RT | | 18" | 24" | 30" | 36" | TYPE | DRAWING NO. | 24 IN ENDWALL 611-07.32 EA. | TYPE | DRAWING NO. | CLASS A CONC. 611-07.01 (C.Y.) | REINF. STEEL 611-07.02 (LB.) | |
| 15+62.97 | | X | PRIVATE DR. STA. 10+32.41 | 83 | | | | U | D-SEW-1A, D-PE-24A | 1 | STRAIGHT | D-PE-4 | 2.71 | 93 | 59º SKEW AT OUTLET |
| **TOTALS** | | | | **83** | **0** | **0** | **0** | | | **1** | | | **2.71** | **93** | |

## RIP-RAP DITCHES

| STATION | | SIDE | | DITCH LENGTH | BOTTOM WIDTH | CLASS B RIP-RAP 709-05.08 (TONS) | CLASS C RIP-RAP 709-05.09 (TONS) | GEOTEXTILE FABRIC TYPE III 740-10.03 (S.Y.) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| FROM | TO | LT | RT | | (L.F.) | | | | |
| 14+37.00 | 14+97.00 | | X | 110 | 3 | 213 | | 146 | |
| 14+26.00 | 14+32.00 | | X | 50 | 3 | | 136 | 70 | |
| **TOTALS** | | | | | | **213** | **136** | **216** | |

## PAVEMENT QUANTITIES

| LOCATION | PAY ITEMS | | | | | | |
|---|---|---|---|---|---|---|---|
| | 303-01 (TON) | 402-01 (TON) | 402-02 (TON) | 403-01 (TON) | 411-01.10 (TON) | 411-01.07 (TON) | 503-01.01 (S.Y.) |
| SR 41 | 360.0 | 1.0 | 3.0 | 0.5 | 72.0 | 36.0 | 1050.0 |
| PVT. DR. | 35.0 | | | | 13.0 | | |
| **TOTALS** | **395.0** | **1.0** | **3.0** | **0.5** | **85.0** | **36.0** | **1050.0** |

## PROPOSED GUARDRAIL

| SHEET NO. | LOCATION | SIDE | | STATION | | SINGLE TYPE 2 705-02.02 (L.F.) | TYPE IN-LINE 705-04.05 (EACH) | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | LT | RT | FROM | TO | | | |
| 4A | SR 41 | | X | 13+39.00 | 15+55.00 | 230 | 2 | |
| **TOTALS** | | | | | | **230** | **2** | |

## GUARDRAIL REMOVAL

| SHEET NO. | LOCATION | SIDE | | STATION | | 706-01 LENGTH (L.F.) | REMARKS |
|---|---|---|---|---|---|---|---|
| | | LT | RT | FROM | TO | | |
| 4A | SR 257 | | X | 42+37.00 | 42+78.00 | 65 | |
| 4A | SR 41 | X | | 13+72.00 | 14+92.00 | 125 | |
| **TOTALS** | | | | | | **190** | |

## ESTIMATED GRADING QUANTITIES

| STATION TO STATION | ROAD & DRAINAGE EXC. (UNCL.) | BORROW EXCAVATION | | EMB. C.Y. |
|---|---|---|---|---|
| | * COMMON - C.Y. | UNCL. - C.Y. | S. ROCK - C.Y. | |
| SR 41 | 2598 | 2795 | 4160 | 2795 |
| SR 257 | 40 | 95 | | 95 |
| PRIVATE DRIVES | 30 | | | |
| HAUL ROADS | 103 | | | |
| | | | | |
| **TOTALS** | **2771** | **2890** | **4160** | **2890** |

* UNSUITABLE

## JUNCTION BOXES

| LOCATION | STATION | OFFSET | SIDE | | DRAINAGE CODE | GRATE/TOP ELEVATION | STRUCTURE TYPE | INSIDE DIMENSIONS (INCHES) | STANDARD DRAWING | JB TY 2 611-02.11 (EACH) |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | LT | RT | | | | | | |
| SR-41 | 13+82.64 | 61.34 | X | | A2 | 843.59 | JB | 48" X 48" | D-JBS-2 | 1 |
| SR-41 | 14+16.97 | 64.98 | | X | A3 | 838.95 | JB | 48" X 48" | D-JBS-2 | 1 |
| **TOTALS** | | | | | | | | | | **2** |

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DEPARTMENT OF TRANSPORTATION
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TABULATED QUANTITIES

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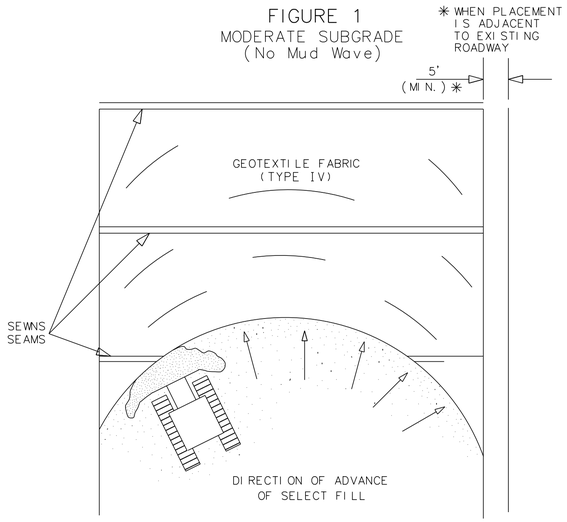
Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 2A |
| CONST. | 2014 | 83008-4228-04 | 2G |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

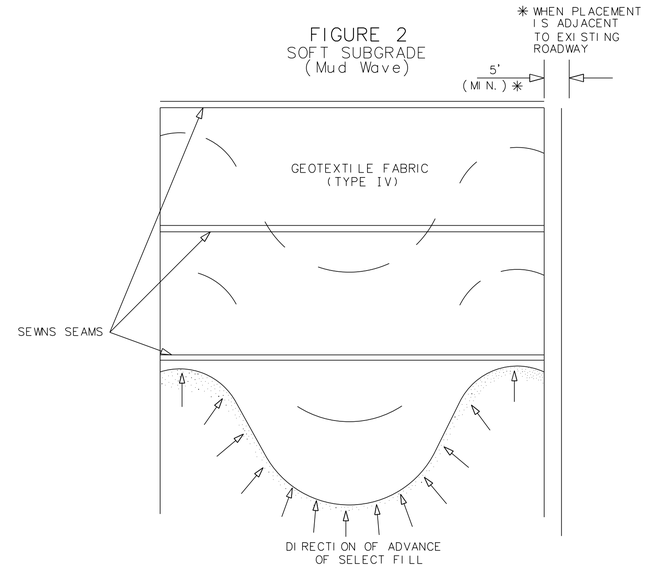
FIGURE 1
MODERATE SUBGRADE
(No Mud Wave)




FABRIC WRINKLES SHOULD BE PULLED OUT IN ADVANCE OF CONSTRUCTION

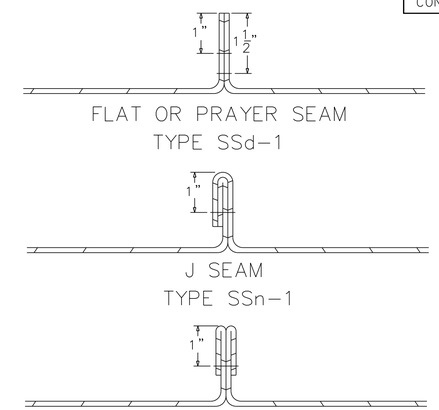
PLACEMENT OF THE FIRST LIFT TO TENSION FABRIC ON MODERATE GROUND CONDITIONS

FIGURE 2
SOFT SUBGRADE
(Mud Wave)




FABRIC WRINKLES SHOULD BE PULLED OUT IN ADVANCE OF CONSTRUCTION

PLACEMENT OF THE FIRST LIFT TO TENSION FABRIC ON SOFT GROUND CONDITIONS




TYPES OF SEAMS

NOTES:

1. THE EXCAVATION OF THE FAILED MATERIAL SHALL BE CONDUCTED SUCH THAT THE CUT SLOPE SHALL BE NO STEEPER THAN 1H:1V.
2. NO MORE THAN 30 FEET OF EXCAVATION, ALONG STATION, WILL BE OPEN AT ANY GIVEN TIME.
3. CUT BENCHES AND FLOORS SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM THE EXCAVATION FACE WITH A SLOPE NO STEEPER THAN 2H:1V FOR THE FINAL GRADE.
4. THE BENCH DRAINAGE SYSTEM SHALL BE CONSTRUCTED AS SHOWN ON THE TYPICAL BENCH DRAIN DETAIL ABOVE. THE BENCH DRAIN SHALL BE CONSTRUCTED BY PLACING A 10 OZ. NON-WOVEN NEEDLE PUNCHED FILTER FABRIC AND THEN PLACING A 2 FOOT THICK INTERVAL OF ASTM D448 NO. 57 STONE OVER THE FABRIC. WRAP THE 57 STONE IN THE FABRIC AND DAY-LIGHT THE STONE DOWN SLOPE.
5. THE BUTTRESS SHALL BE CONSTRUCTED FROM GRADED SOLID ROCK AS DESCRIBED BY SECTION 205.04B OF THE 2006 TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. BACKFILL OF THE EXCAVATION WITH GRADED SOLID ROCK MAY BE ACCOMPLISHED BY TRACK HOE, CLAMSHELL BUCKET, OR ANY MEANS SUCH THAT THE ROCK DOES NOT FREE FALL ON THE DRAINAGE SYSTEM. THE GRADED SOLID ROCK SHALL BE COMPACTED BY RUNNING A SMALL BULLDOZER OVER THE ROCK SURFACE WITH A MAXIMUM LIFT THICKNESS OF 24 INCHES.
6. EXCAVATION AND BACKFILL OF GRADED SOLID ROCK FOR THE BUTTRESS WILL CONTINUE TO AN ELEVATION SO THAT A 1-FOOT LAYER OF NO. 57 STONE, A LAYER OF GEOTEXTILE TYPE IV FABRIC, BASE STONE AND PAVING WILL ACHIEVE THE FINAL GRADE ELEVATION.
7. WASTING OF THE MATERIAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AS SPECIFIED IN THE 2006 TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND BE CONDUCTED ACCORDING TO THE PROCEDURES SET FORTH IN THE TENNESSEE DEPARTMENT OF TRANSPORTATION STATEWIDE STORM WATER MANAGEMENT PROGRAM, PROCEDURES FOR PROVIDING OFFSITE WASTE AND BORROW ON TDOT CONSTRUCTION PROJECTS.
8. ELEVATIONS OF THE BASE OF THE BUTTRESS AREA ARE APPROXIMATE. ACTUAL ELEVATIONS WILL BE DETERMINED BY THE GEOTECHNICAL ENGINEER OR GEOLOGIST DURING CONSTRUCTION.

GEOTEXTILE NOTES:

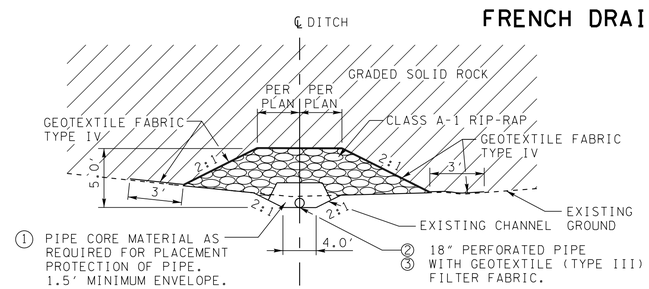
THE GEOTEXTILE SHALL BE PLACED LOOSELY, WITH NO WRINKLES OR FOLDS, IN DIRECT CONTACT WITH THE GROUND. THE GEOTEXTILE SHALL BE LAID IN STRIPS PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY. IN ALL CASES THE OVERLAP OF SUCCESSIVE SHEETS SHALL PLACE THE UPSLOPE SHEET ON TOP OF THE DOWN SLOPE SHEET.

THE SEAMS OF EACH STRIP OF FABRIC SHALL BE SEWN USING EITHER A STANDARD "J" SEAM OR "BUTTERFLY" SEAM (SEE ATTACHED DIAGRAM). THERMAL WELDING IS ALSO ALLOWABLE AS PER THE MANUFACTURERS RECOMMENDATIONS AND INSTRUCTIONS. IN EITHER CASE, ALL SEAMS SHALL BE EXPOSED WITH THE SEAM SUCH THAT ALL SEAMS CAN BE INSPECTED AND REPAIRS EASILY MADE SHOULD A FAULTY SEAM BE ENCOUNTERED. ADDITIONALLY, REGARDLESS OF THE SEAM TYPE SELECTED, THE DURABILITY OF THE SEAM SHALL BE THE SAME AS THAT OF THE GEOTEXTILE.

AGGREGATE SHALL BE PLACED CAREFULLY ONTO THE GEOTEXTILE TO PREVENT DAMAGE. WHEN A PORTION OF THE TEXTILE IS DAMAGED EITHER REPLACE THE ENTIRE STRIP(S) THAT ARE DAMAGED OR PATCH WITH TEXTILE OVERLAPPING ON ALL SIDES A MINIMUM OF ONE FOOT. CONSTRUCTION VEHICLES SHALL NEVER BE DRIVEN DIRECTLY ONTO THE GEOTEXTILE.

STORAGE AND HANDLING OF THE GEOTEXTILES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

## FRENCH DRAIN DETAIL




FRENCH DRAIN DETAIL

NOTES;

① PIPE CORE MATERIAL SHALL BE WASHED GRAVEL MEETING SIZE AND QUANTITY REQUIREMENTS OF ASTM D692 GRADING REQUIREMENTS FOR SIZE 6, 7, 8, 57, OR 78. (CORE MATERIAL PAY INCLUDED IN THE PRICE PER LINEAR FEET OF PERFORATED PIPE)

② PERFORATED PIPE SHALL BE MINIMUM 18" CORRUGATED DOUBLE WALL HDPE PIPE WRAPPED WITH GEOTEXTILE (TYPE III) FILTER FABRIC.

③ GEOTEXTILE (TYPE III) FILTER FABRIC USED TO WRAP 18" CORRUGATED DOUBLE WALL HDPE PIPE TO BE INCLUDED IN THE PRICE PER LINEAR FEET OF PERFORATED PIPE.

| FRENCH DRAIN | | | | | | |
|---|---|---|---|---|---|---|
| LOCATION | LENGTH (LF.) | 18" PERFORATED PIPE 710-10.08 | CORE MATERIAL (SEE NOTE 1 ON THIS SHEET) (C.Y.) | GEOTEXTILE (TYPE III) (SEE NOTES 2 AND 3 ON THIS SHEET) (S.Y.) | CLASS A-1 RIP-RAP 709-05.06 (TON) | GEOTEXTILE (TYPE IV) (STABILIZATION)(S.Y.) 740-10.04 |
| SR-41 | 47 | 47 | 19 | 94 | 167 | 180 |
| | | | FOR INFORMATION PURPOSES ONLY | | | |

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
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DETAIL SHEET

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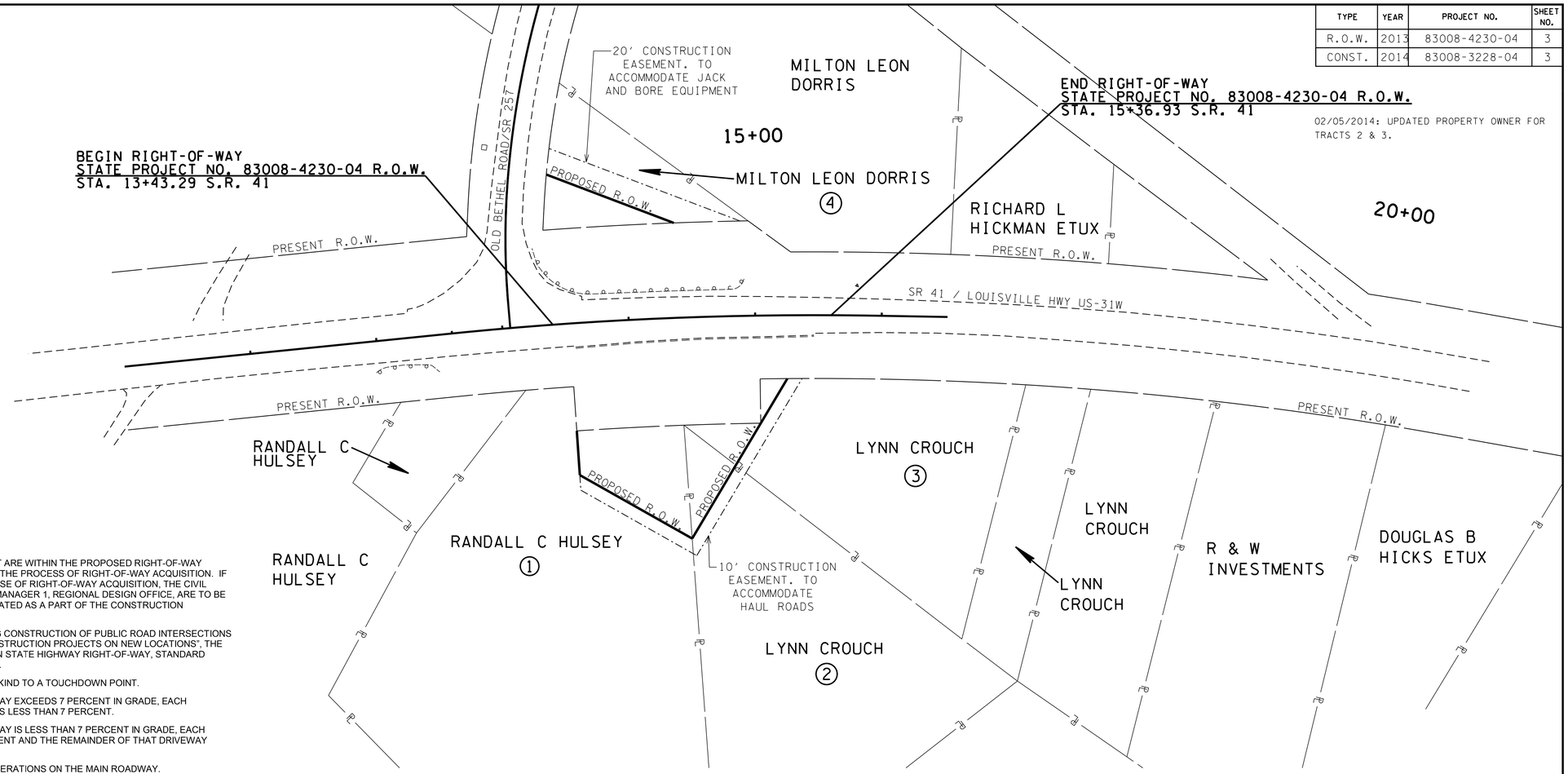
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 3 |
| CONST. | 2014 | 83008-3228-04 | 3 |

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## RIGHT - OF - WAY NOTES

(1) IT IS INTENDED THAT ALL BUILDINGS AND/OR PORTIONS OF BUILDINGS THAT ARE WITHIN THE PROPOSED RIGHT-OF-WAY AND/OR EASEMENT LINES FOR THE PROJECT BE REMOVED THERE FROM IN THE PROCESS OF RIGHT-OF-WAY ACQUISITION. IF ANY SUCH BUILDINGS OR IMPROVEMENTS ARE NOT REMOVED IN THE COURSE OF RIGHT-OF-WAY ACQUISITION, THE CIVIL ENGINEERING MANAGER 2, DESIGN DIVISION AND THE CIVIL ENGINEERING MANAGER 1, REGIONAL DESIGN OFFICE, ARE TO BE NOTIFIED IN SUFFICIENT TIME TO PERMIT HAVING SUCH REMOVALS DESIGNATED AS A PART OF THE CONSTRUCTION CONTRACT.

(2) ALL RAMPS MUST CONFORM TO THE DEPARTMENT'S "POLICY ON FINANCING CONSTRUCTION OF PUBLIC ROAD INTERSECTIONS AND DRIVEWAYS ON HIGHWAY RESURFACING, RECONSTRUCTION AND CONSTRUCTION PROJECTS ON NEW LOCATIONS", THE MANUAL ON RULES AND REGULATIONS FOR CONSTRUCTING DRIVEWAYS ON STATE HIGHWAY RIGHT-OF-WAY, STANDARD DRAWING RP-R-1, AND OTHER ACCEPTED DESIGN AND SAFETY STANDARDS.

(3) EXISTING PAVED DRIVEWAY PER TRACT REMAINDER WILL BE REPLACED IN KIND TO A TOUCHDOWN POINT.

(4) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY EXCEEDS 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED TO A TOUCHDOWN POINT OR UNTIL THE GRADE IS LESS THAN 7 PERCENT.

(5) WHERE THE EXISTING DRIVEWAY IS UNPAVED AND THE PROPOSED DRIVEWAY IS LESS THAN 7 PERCENT IN GRADE, EACH DRIVEWAY WILL BE PAVED A SHOULDER WIDTH FROM THE EDGE OF PAVEMENT AND THE REMAINDER OF THAT DRIVEWAY REPLACED IN KIND TO A TOUCHDOWN POINT.

(6) ANY NECESSARY PAVING OF DRIVEWAYS WILL BE DONE DURING PAVING OPERATIONS ON THE MAIN ROADWAY.

(7) TRACT REMAINDERS NOT HAVING AN EXISTING DRIVEWAY WILL BE PROVIDED ONE 50-FOOT OPENING IN THE ACCESS CONTROL FENCE AND A DRIVEWAY WILL BE CONSTRUCTED UNLESS ACCESS IS PROVIDED FROM AN INTERSECTING ROAD OR BASED ON PHYSICAL CONDITIONS AND/OR CONFLICTS WITH OTHER DESIGN CONSIDERATIONS WHICH PREVENT AN ACCESS OPENING. PAVING OF THESE NEW DRIVEWAYS WILL BE IN ACCORDANCE TO THE 7 PERCENT CRITERIA PREVIOUSLY MENTIONED FOR EXISTING DRIVEWAYS.

(8) NEW DRIVEWAYS PROVIDED IN THE PLANS WILL BE PAVED BASED ON THE 7 PERCENT CRITERIA. THOSE 7 PERCENT OR STEEPER IN GRADE WILL BE PAVED AND THOSE FLATTER THAN 7 PERCENT WILL BE COVERED WITH BASE STONE.

(9) ON PROJECTS WITHOUT CURB AND GUTTER THAT ARE ON STATE ROUTES, IT WILL BE THE RESPONSIBILITY OF THE OWNER TO SECURE A PERMIT AND TO CONSTRUCT ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS.

(10) ON NON-STATE ROUTES, ADDITIONAL DRIVEWAYS AND FIELD ENTRANCES OTHER THAN THOSE PROVIDED IN THE PLANS SHALL REQUIRE A PERMIT ONLY IF THE LOCAL AGENCY SPECIFIES THE NEED FOR THAT PERMIT.

## UTILITIES

1) THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.

2) UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT'S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

3) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.

4) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR THE CLEARING ITEM SPECIFIED IN THE PLANS.

5) THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.

## R.O.W. ACQUISITION TABLE

| TRACT NO. | PROPERTY OWNERS | COUNTY RECORDS | | | | TOTAL AREA ACRES | | | AREA TO BE ACQUIRED ACRES | | | AREA REMAINING ACRES | | EASEMENT (SQUARE FEET) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TAX MAP NO. | PARCEL NO. | DEED DOCUMENT REFERENCE BK. | DEED DOCUMENT REFERENCE PAGE | LEFT | RIGHT | TOTAL | LEFT | RIGHT | TOTAL | LEFT | RIGHT | PERM. DRAINAGE | SLOPE | CONST. |
| 1 | RANDALL C HULSEY | 118 | 034.00 | 152 | 252 | | 4.707 | 4.707 | | 0.122 | 0.122 | 0.000 | 4.585 | | | 1019.82 |
| 2 | MONTGOMERY G. TURNER, SR. | 118 | 031.00 | 3894 | 816 | | 0.989 | 0.989 | | 0.040 | 0.040 | 0.000 | 0.950 | | | 732.96 |
| 3 | MONTGOMERY G. TURNER, SR. | 118 | 030.00 | 3894 | 816 | | 0.678 | 0.678 | | 0.032 | 0.032 | 0.000 | 0.646 | | | 831.82 |
| 4 | MILTON LEON DORRIS | 118 | 022.01 | 458 | 536 | 0.217 | | 0.217 | 0.052 | | 0.052 | 0.165 | 0.000 | | | 2689.05 |

## UTILITY OWNERS

| UTILITY | OWNER | PHONE NO. | CONTACT | EMAIL | ADDRESS | CITY | STATE | ZIP CODE |
|---|---|---|---|---|---|---|---|---|
| Sewer | City of Millersville | 615-859-0880 | Amy Hutchison | sewerbilling@cityofmillersville.com | 1246 Louisville Hwy | Millersville | TN | 37072 |
| Water | White House Utility District | 615-672-1014 | Roy Dill | cdill@whud.org | 3303 Highway 31 West | White House | TN | 37188 |
| Fiber Optic | Level 3 Communications | 720-888-7280 | Tim Boykin | Tim.boykin@level3.com | 1025 Eldorado Boulevard | Broomfield | CO | 80021 |
| Telephone | AT&T | 615- 214-7318 | Kim Bean | kb1078@att.com | 333 Commerce Street, RM23C142 | Nashville | TN | 37201 |
| Cable | Comcast/Xfinity | 615-244-7462 ext.1115381 | Doak Sharrock | doak_sharrock@cable.comcast.com | 660 Mainstream Drive | Nashville | TN | 37228 |
| Power | Cumberland Electric Membership Corporation | 931-645-2481 x 1117 | Mark Cook | mcook@cemc.org | 1940 Madison Street | Clarksville | TN | 37043 |

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROP. MAP, ACQ. TABLE/ NOTES, UTILITY NOTES/OWNERS

SCALE: 1" = 50'

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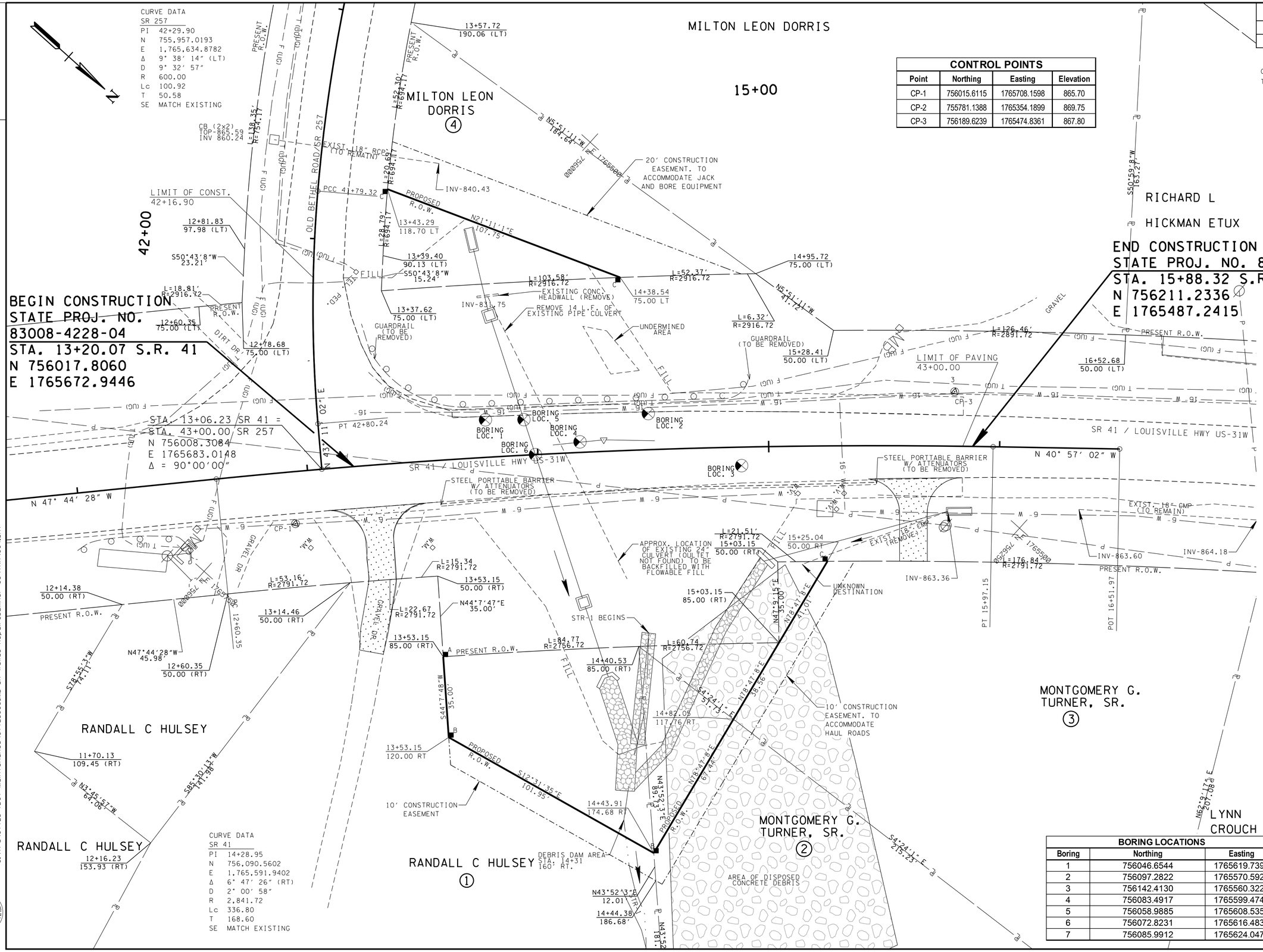
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 4 |
| CONST. | 2014 | 83008-3228-04 | 4 |

02/05/2014: UPDATED PROPERTY OWNER FOR TRACTS 2 & 3.




## CONTROL POINTS

| Point | Northing | Easting | Elevation |
|---|---|---|---|
| CP-1 | 756015.6115 | 1765708.1598 | 865.70 |
| CP-2 | 755781.1388 | 1765354.1899 | 869.75 |
| CP-3 | 756189.6239 | 1765474.8361 | 867.80 |

## BORING LOCATIONS

| Boring | Northing | Easting |
|---|---|---|
| 1 | 756046.6544 | 1765619.7399 |
| 2 | 756097.2822 | 1765570.5923 |
| 3 | 756142.4130 | 1765560.3221 |
| 4 | 756083.4917 | 1765599.4748 |
| 5 | 756058.9885 | 1765608.5358 |
| 6 | 756072.8231 | 1765616.4833 |
| 7 | 756085.9912 | 1765624.0479 |

**UNOFFICIAL SET**

**NOT FOR BIDDING**

COORDINATE VALUES ARE NAD/83(1995) AND ARE TIED TO THE TGRN

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PRESENT LAYOUT

SCALE: 1" = 20'

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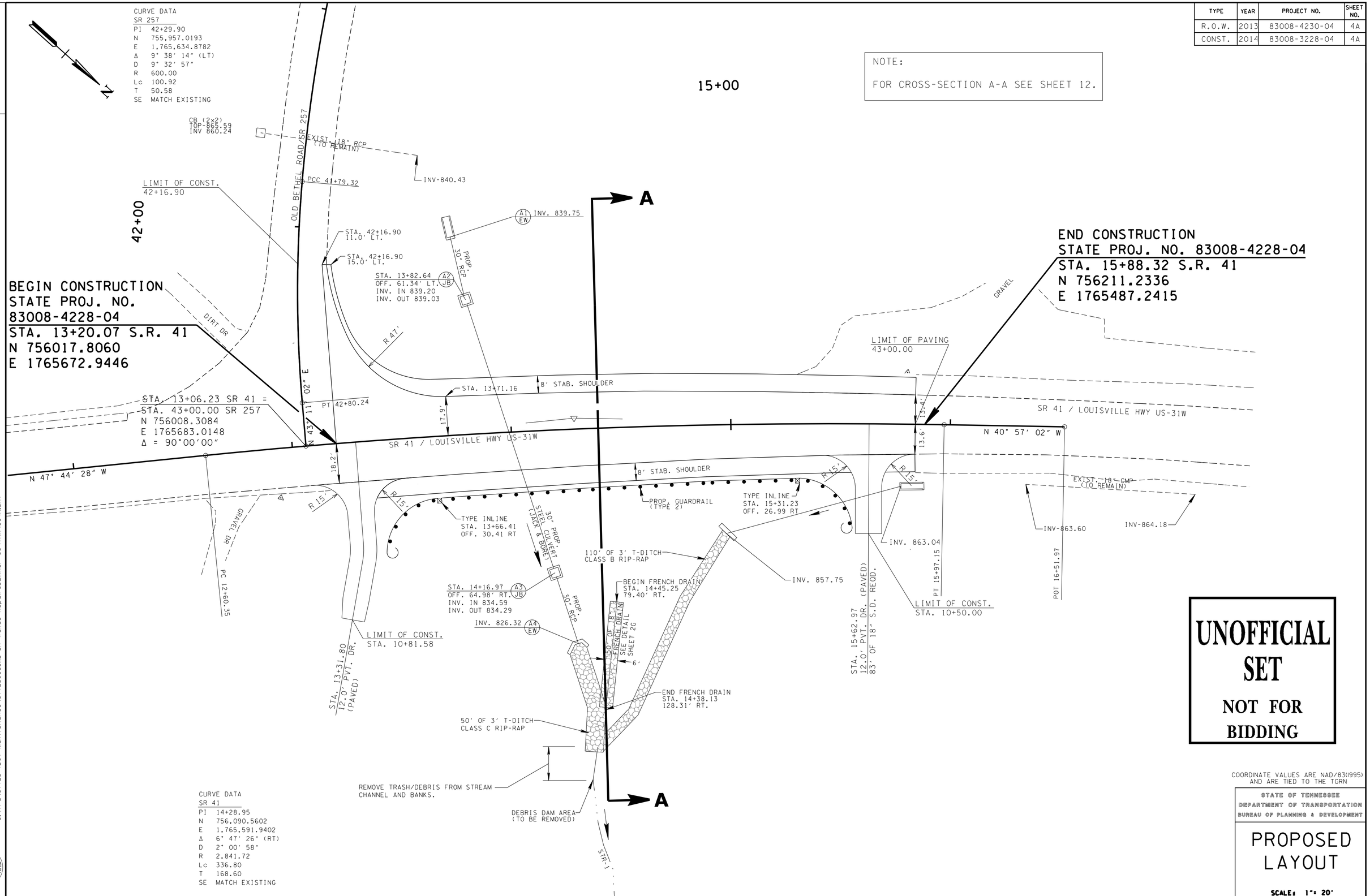
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 4A |
| CONST. | 2014 | 83008-3228-04 | 4A |

NOTE:

FOR CROSS-SECTION A-A SEE SHEET 12.




UNOFFICIAL SET

NOT FOR BIDDING

COORDINATE VALUES ARE NAD/83(1995) AND ARE TIED TO THE TGRN

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PROPOSED LAYOUT

SCALE: 1" = 20′

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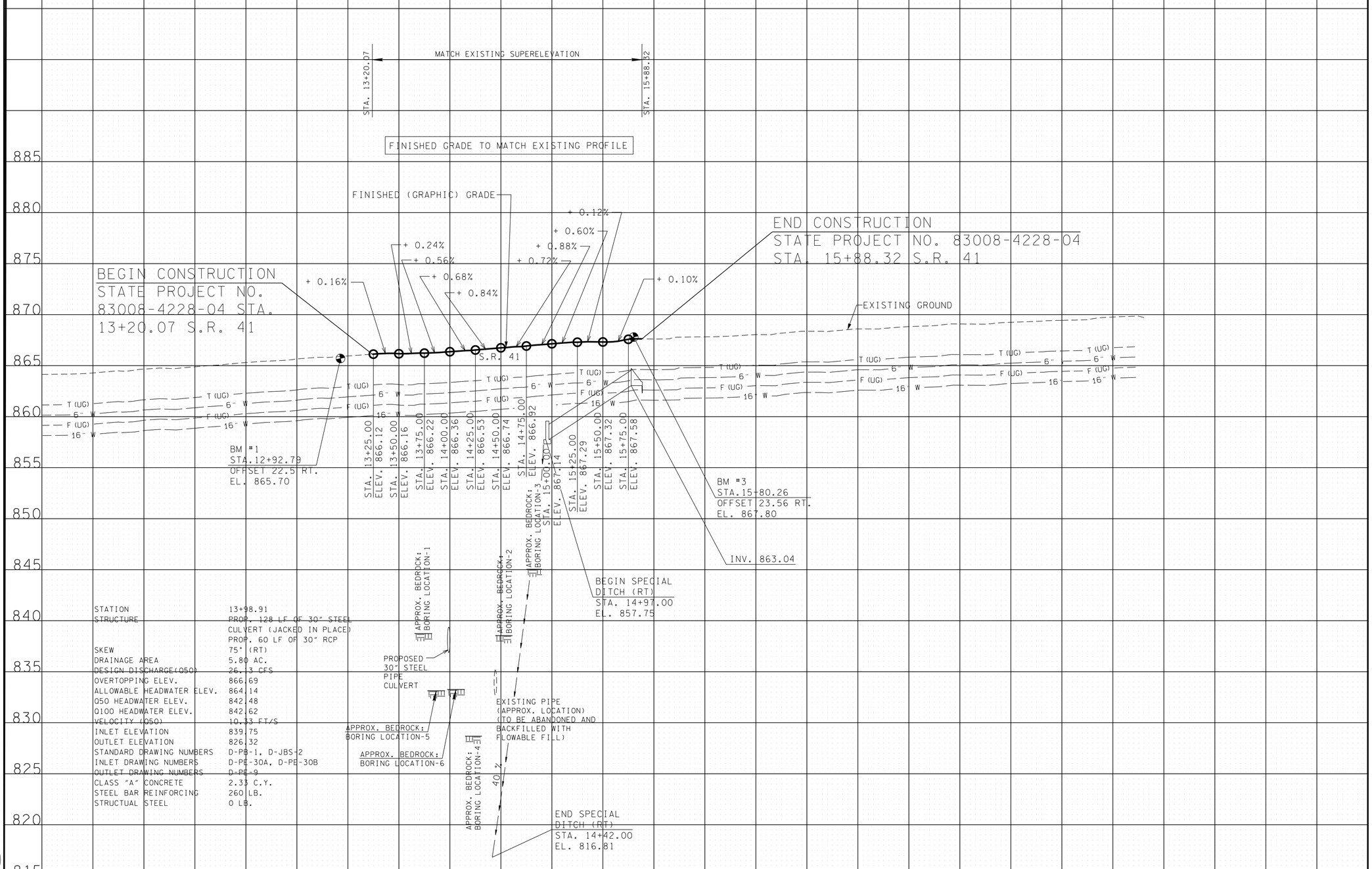
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 4B |
| CONST. | 2013 | 83008-3228-04 | 4B |

| | | | | |
|---|---|---|---|---|
| EXC. (UNCL.) | COMMON | 2771 | C.Y. | (INCLUDES 30 C.Y. FOR PVT. DRIVES; 103 C.Y. FOR HAUL ROADS) |
| EMB. | | 2890 | C.Y. | (INCLUDES 404 C.Y. TO REPLACE STRIPPED TOPSOIL) |
| ROCK BUTTRESS | | 4160 | C.Y. | GRADED SOLID ROCK (7340 TONS) |

SHR. 20 %
SW. 20 %




| | |
|---|---|
| STATION | 13+98.91 |
| STRUCTURE | PROP. 128 LF OF 30" STEEL CULVERT (JACKED IN PLACE) PROP. 60 LF OF 30" RCP |
| SKEW | 75° (RT) |
| DRAINAGE AREA | 5.80 AC. |
| DESIGN DISCHARGE(Q50) | 26.3 CFS |
| OVERTOPPING ELEV. | 866.69 |
| ALLOWABLE HEADWATER ELEV. | 864.14 |
| Q50 HEADWATER ELEV. | 842.48 |
| Q100 HEADWATER ELEV. | 842.62 |
| VELOCITY (Q50) | 10.33 FT/S |
| INLET ELEVATION | 839.75 |
| OUTLET ELEVATION | 826.32 |
| STANDARD DRAWING NUMBERS | D-PB-1, D-JBS-2 |
| INLET DRAWING NUMBERS | D-PE-30A, D-PE-30B |
| OUTLET DRAWING NUMBERS | D-PE-9 |
| CLASS "A" CONCRETE | 2.33 C.Y. |
| STEEL BAR REINFORCING | 260 LB. |
| STRUCTUAL STEEL | 0 LB. |

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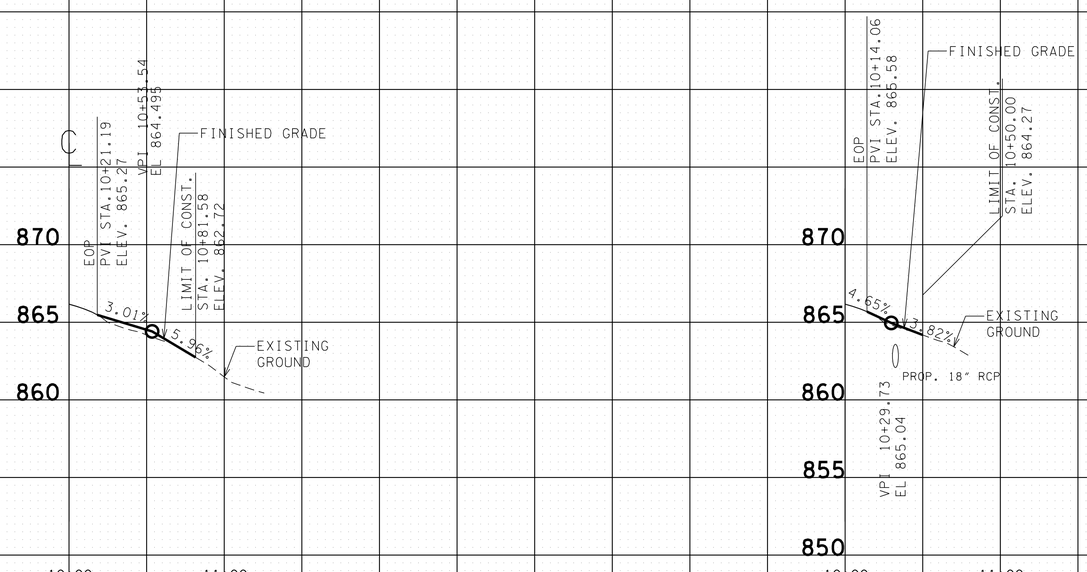
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# PROFILE
# S.R. 41

SCALE: 1" = 50' HORIZ.
1" = 5' VERT.

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 4C |
| CONST. | 2013 | 83008-3228-04 | 4C |




STA. 13+31.80 (RT.) 12' PVT. DR.




STA. 15+62.97 (RT.) 12' PVT. DR.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# PROFILE OF PRIVATE DRIVES

SCALE: 1"= 50' HORIZ.
1"= 5' VERT.

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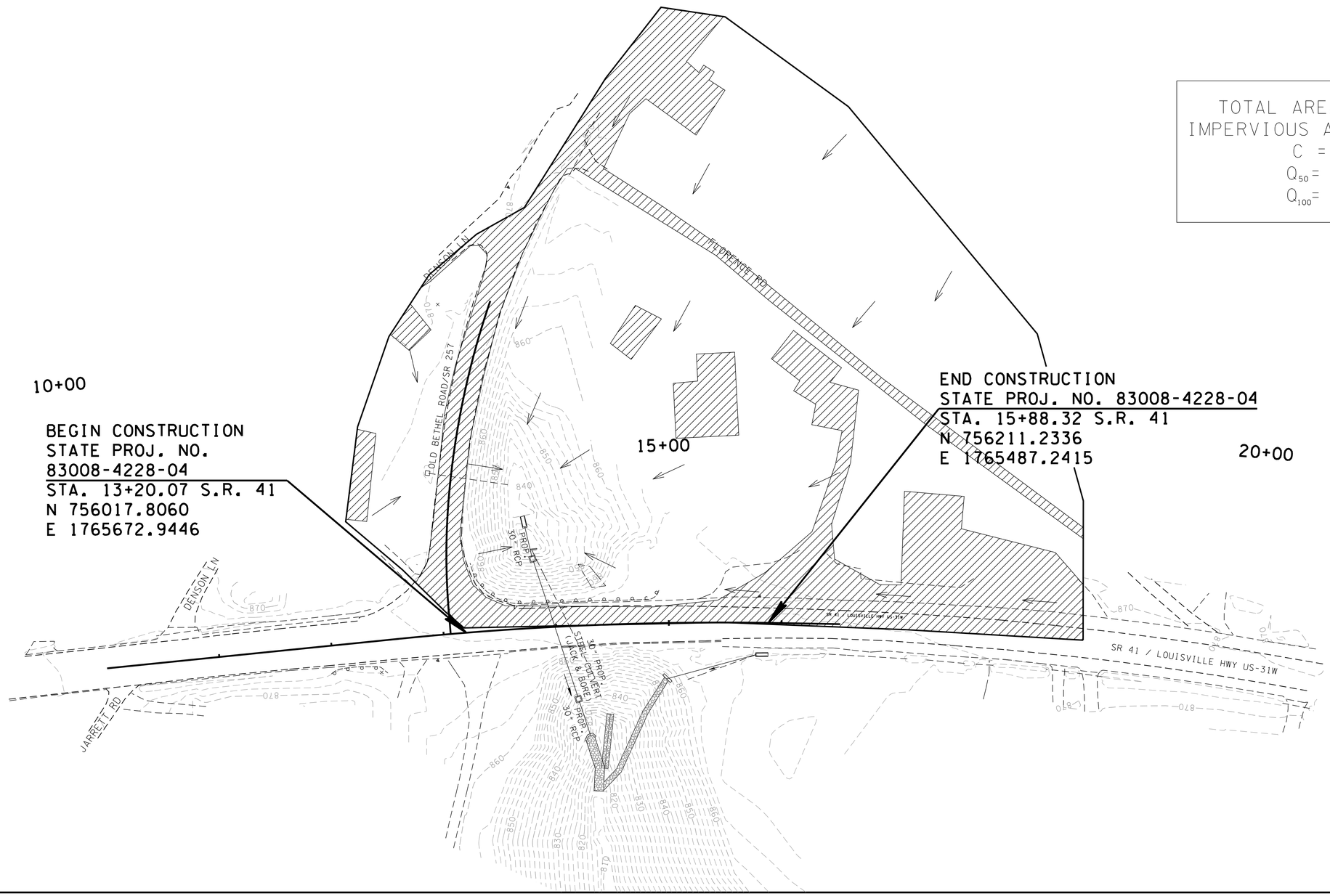
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 5 |
| CONST. | 2014 | 83008-3228-04 | 5 |




TOTAL AREA = 5.80 AC
IMPERVIOUS AREA = 1.50 AC
C = 0.53
$Q_{50}$= 26.13
$Q_{100}$= 27.67

**UNOFFICIAL SET**

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

DRAINAGE MAP

SCALE: 1" = 50'

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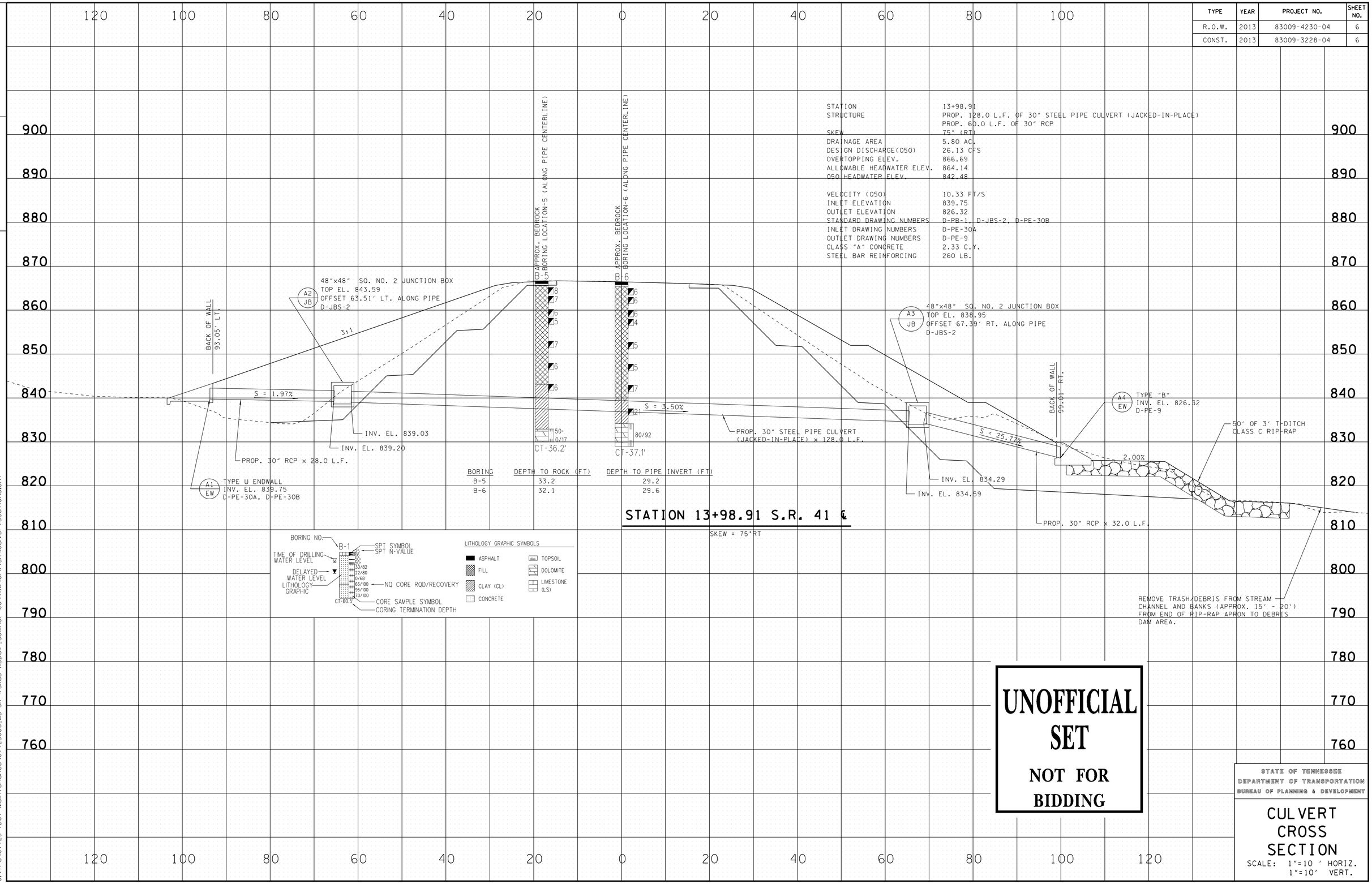
Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83009-4230-04 | 6 |
| CONST. | 2013 | 83009-3228-04 | 6 |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| | |
|---|---|
| STATION | 13+98.91 |
| STRUCTURE | PROP. 128.0 L.F. OF 30" STEEL PIPE CULVERT (JACKED-IN-PLACE) |
| | PROP. 60.0 L.F. OF 30" RCP |
| SKEW | 75° (RT) |
| DRAINAGE AREA | 5.80 AC. |
| DESIGN DISCHARGE(Q50) | 26.13 CFS |
| OVERTOPPING ELEV. | 866.69 |
| ALLOWABLE HEADWATER ELEV. | 864.14 |
| Q50 HEADWATER ELEV. | 842.48 |
| VELOCITY (Q50) | 10.33 FT/S |
| INLET ELEVATION | 839.75 |
| OUTLET ELEVATION | 826.32 |
| STANDARD DRAWING NUMBERS | D-PB-1, D-JBS-2, D-PE-30B |
| INLET DRAWING NUMBERS | D-PE-30A |
| OUTLET DRAWING NUMBERS | D-PE-9 |
| CLASS "A" CONCRETE | 2.33 C.Y. |
| STEEL BAR REINFORCING | 260 LB. |




| BORING | DEPTH TO ROCK (FT) | DEPTH TO PIPE INVERT (FT) |
|---|---|---|
| B-5 | 33.2 | 29.2 |
| B-6 | 32.1 | 29.6 |

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DEPARTMENT OF TRANSPORTATION
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CULVERT CROSS SECTION

SCALE: 1"=10' HORIZ.
1"=10' VERT.

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 7 |
| CONST. | 2014 | 83008-3228-04 | 7 |

# EROSION PREVENTION AND SEDIMENT CONTROL NOTES

## STREAM/WETLAND

(1) ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., FOR PIER FOOTING, RIP-RAP PLACEMENT, MULTI-BARREL CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS, EC-STR-31 AND TEMPORARY DIVERSION CULVERTS, EC-STR-32 FOR SINGLE BARREL CULVERT CONSTRUCTION.

(2) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

## KNOWN EXCEPTIONAL TENNESSEE WATERS

(3) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, AN OUTFALL IN A DRAINAGE AREA OF 5 ACRES OR MORE, A TEMPORARY (OR PERMANENT) SEDIMENT BASIN THAT PROVIDES STORAGE FOR A CALCULATED VOLUME OF RUNOFF FROM A 5-YEAR/ 24-HOUR STORM EVENT AND RUNOFF FROM EACH ACRE DRAINED, OR EQUIVALENT CONTROL MEASURES, SHALL BE PROVIDED UNTIL FINAL STABILIZATION OF THE SITE. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS MAY BE CONTACTED TO REVIEW AND CONCUR WITH ANY REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE OUTFALL PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT.

(4) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, A 60 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM WITH THIS DESIGNATION SHALL BE PRESERVED, TO THE MAXIMUM EXTENT PRACTICABLE, DURING CONSTRUCTION ACTIVITIES AT THE SITE. BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND SHOULD NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE SWPPP BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

## NPDES

(5) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE STAGING OF THEIR OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE ENGINEER. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN CONTAINED IN THE APPROVED SWPPP.

(6) THE EPSC MEASURES AND/OR PLAN SHALL BE MODIFIED AS NECESSARY SO THAT THEY ARE EFFECTIVE AT ALL TIMES THROUGHOUT THE COURSE OF THE PROJECT.

(7) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES, INCLUDING WITHOUT LIMITATION AS FOLLOWS:

A. INITIAL CLEARING AND GRUBBING SHALL BE LIMITED TO THAT NECESSARY FOR THE INSTALLATION OF APPLICABLE EPSC MEASURES IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

B. NO OTHER CLEARING AND GRUBBING OPERATIONS SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

C. NO CULVERT OR BRIDGE CONSTRUCTION SHALL BE STARTED BEFORE APPLICABLE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

D. NO GRADING, EXCAVATION, CUTTING, FILLING, OR OTHER EARTHWORK SHALL BE STARTED BEFORE EPSC MEASURES ARE IN PLACE IN ACCORDANCE WITH THE ACCEPTED EPSC PLAN INCORPORATED INTO THE SWPPP.

(8) PERMANENT EPSC MEASURES SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY SEQUENCE OR PHASE. TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OR WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES (SILT AND CLAY SIZED PARTICLES) OR CRUSHER-RUN WILL NOT BE CONSIDERED A NON-ERODIBLE SURFACE.

(9) STEEP SLOPES (A NATURAL OR CREATED SLOPE OF 35% GRADE (2.8H:1V) OR GREATER REGARDLESS OF HEIGHT) SHALL BE TEMPORARILY STABILIZED NO LATER THAN 7 CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

(10) FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION SUPPORT ACTIVITIES; TDOT PROJECTS ARE COVERED UNDER THE "WASTE AND BORROW" MANUAL PER THE SSWMP.

(2) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

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Survey & Design Division

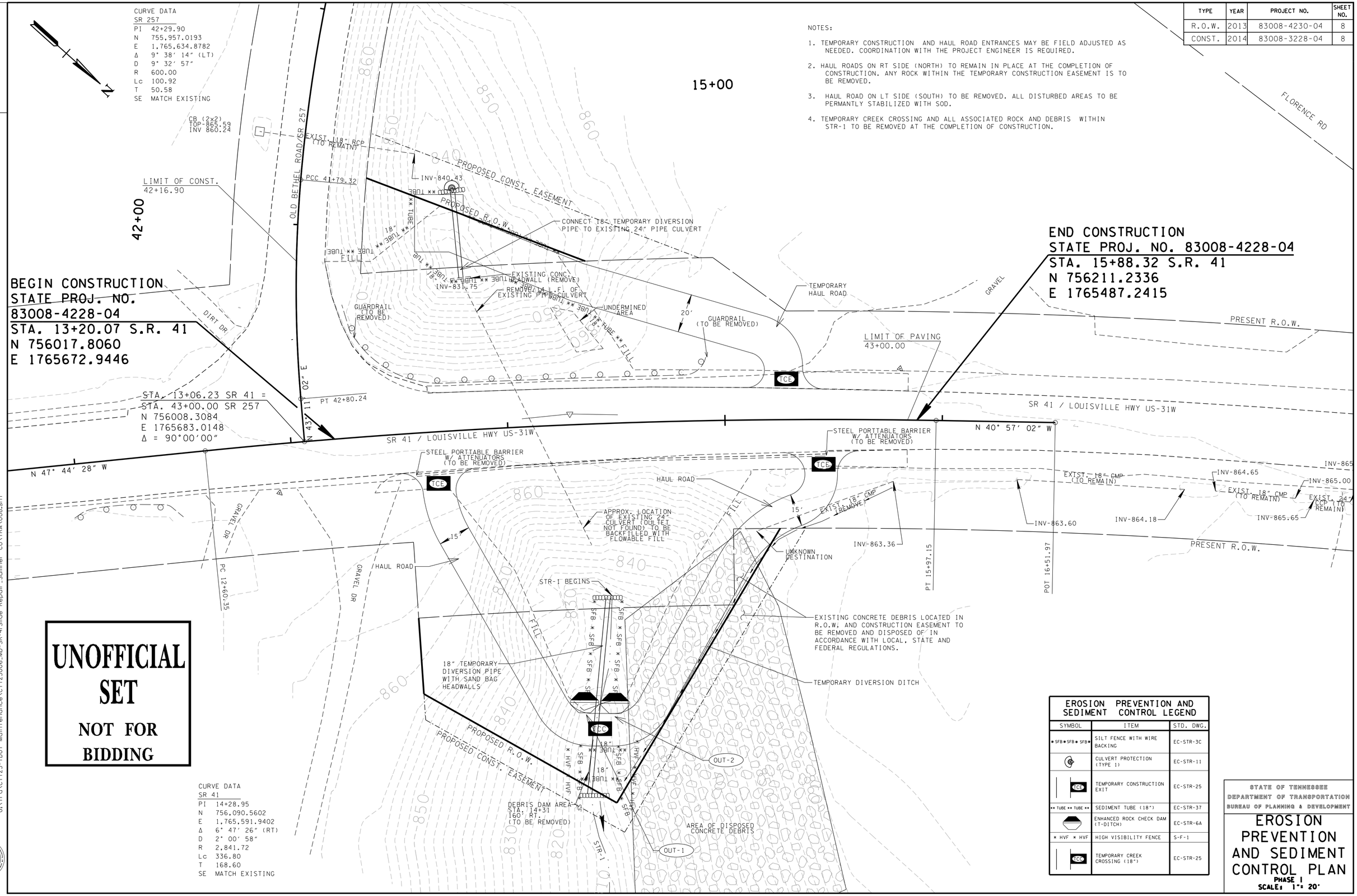
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 8 |
| CONST. | 2014 | 83008-3228-04 | 8 |

NOTES:

1. TEMPORARY CONSTRUCTION AND HAUL ROAD ENTRANCES MAY BE FIELD ADJUSTED AS NEEDED. COORDINATION WITH THE PROJECT ENGINEER IS REQUIRED.
2. HAUL ROADS ON RT SIDE (NORTH) TO REMAIN IN PLACE AT THE COMPLETION OF CONSTRUCTION. ANY ROCK WITHIN THE TEMPORARY CONSTRUCTION EASEMENT IS TO BE REMOVED.
3. HAUL ROAD ON LT SIDE (SOUTH) TO BE REMOVED. ALL DISTURBED AREAS TO BE PERMANTLY STABILIZED WITH SOD.
4. TEMPORARY CREEK CROSSING AND ALL ASSOCIATED ROCK AND DEBRIS WITHIN STR-1 TO BE REMOVED AT THE COMPLETION OF CONSTRUCTION.

CURVE DATA
SR 257
PI 42+29.90
N 755,957.0193
E 1,765,634.8782
Δ 9° 38′ 14″ (LT)
D 9° 32′ 57″
R 600.00
Lc 100.92
T 50.58
SE MATCH EXISTING




CURVE DATA
SR 41
PI 14+28.95
N 756,090.5602
E 1,765,591.9402
Δ 6° 47′ 26″ (RT)
D 2° 00′ 58″
R 2,841.72
Lc 336.80
T 168.60
SE MATCH EXISTING

**UNOFFICIAL SET**

**NOT FOR BIDDING**

| EROSION PREVENTION AND SEDIMENT CONTROL LEGEND | | |
|---|---|---|
| SYMBOL | ITEM | STD. DWG. |
| SFB SFB SFB | SILT FENCE WITH WIRE BACKING | EC-STR-3C |
| | CULVERT PROTECTION (TYPE I) | EC-STR-11 |
| TCE | TEMPORARY CONSTRUCTION EXIT | EC-STR-25 |
| TUBE TUBE | SEDIMENT TUBE (18") | EC-STR-37 |
| | ENHANCED ROCK CHECK DAM (T-DITCH) | EC-STR-6A |
| HVF HVF | HIGH VISIBILITY FENCE | S-F-1 |
| TCC | TEMPORARY CREEK CROSSING (18") | EC-STR-25 |

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
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# EROSION PREVENTION AND SEDIMENT CONTROL PLAN

PHASE I
SCALE: 1" = 20'

6/18/2014 7:53:19 AM
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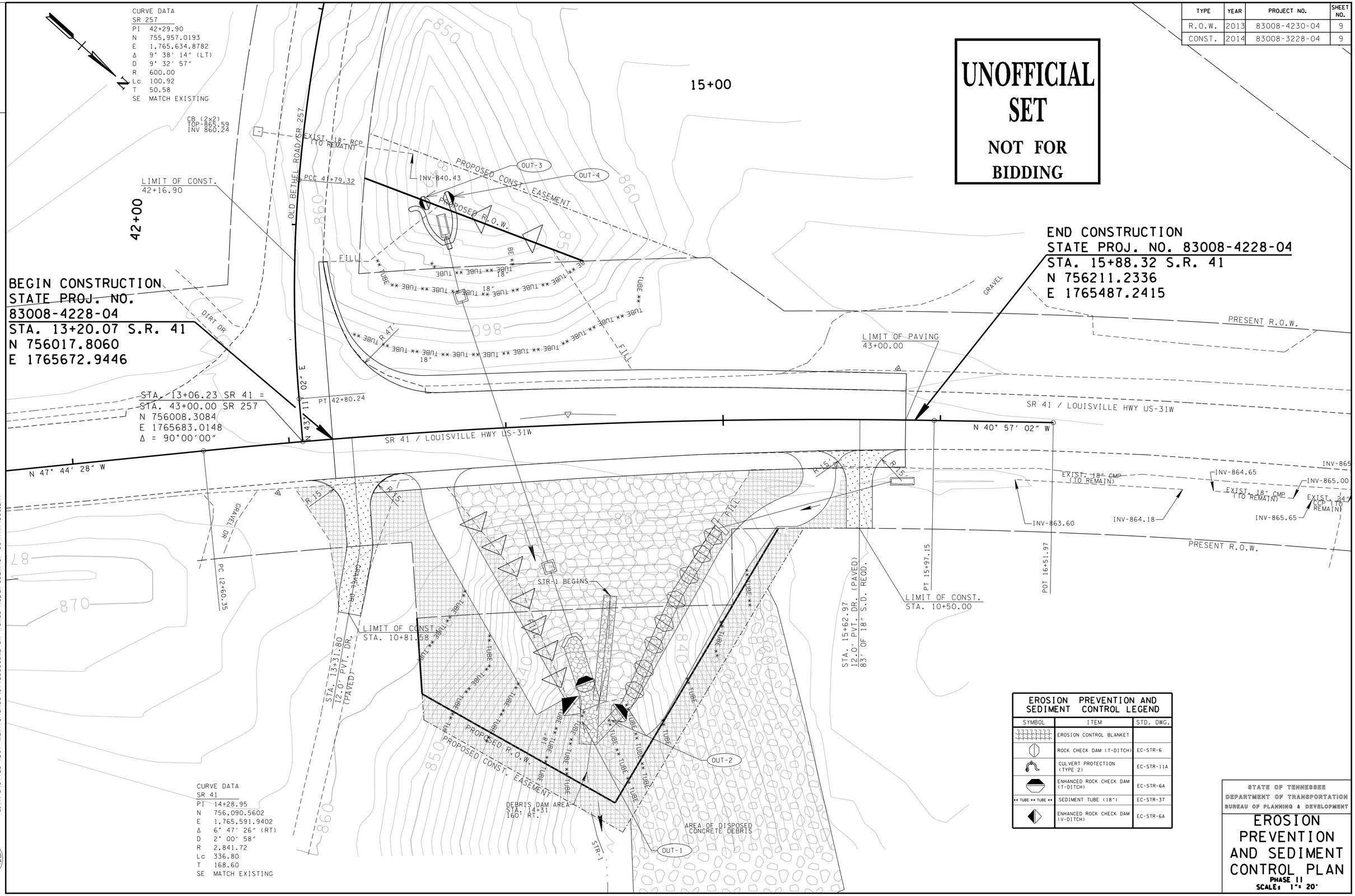
Survey & Design Division

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 9 |
| CONST. | 2014 | 83008-3228-04 | 9 |

**UNOFFICIAL SET**
**NOT FOR BIDDING**




**EROSION PREVENTION AND SEDIMENT CONTROL LEGEND**

| SYMBOL | ITEM | STD. DWG. |
|---|---|---|
| | EROSION CONTROL BLANKET | |
| | ROCK CHECK DAM (T-DITCH) | EC-STR-6 |
| | CULVERT PROTECTION (TYPE 2) | EC-STR-11A |
| | ENHANCED ROCK CHECK DAM (T-DITCH) | EC-STR-6A |
| ** TUBE ** TUBE ** | SEDIMENT TUBE (18″) | EC-STR-37 |
| | ENHANCED ROCK CHECK DAM (V-DITCH) | EC-STR-6A |

STATE OF TENNESSEE
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# EROSION PREVENTION AND SEDIMENT CONTROL PLAN

PHASE II
SCALE: 1" = 20'

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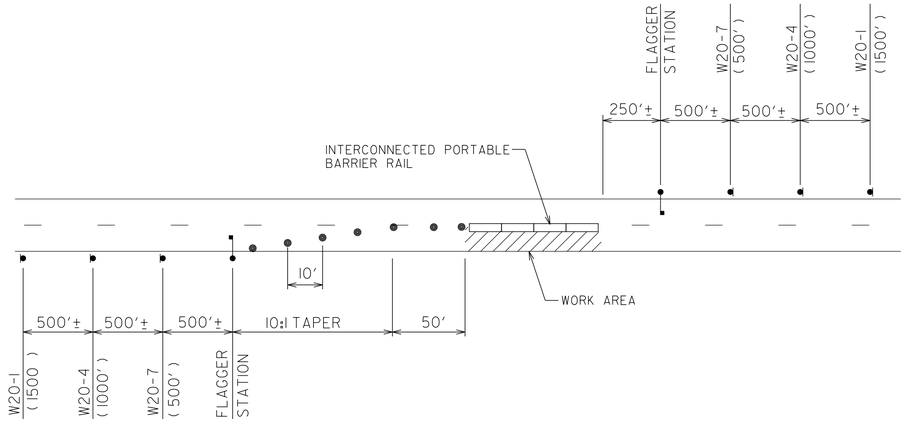
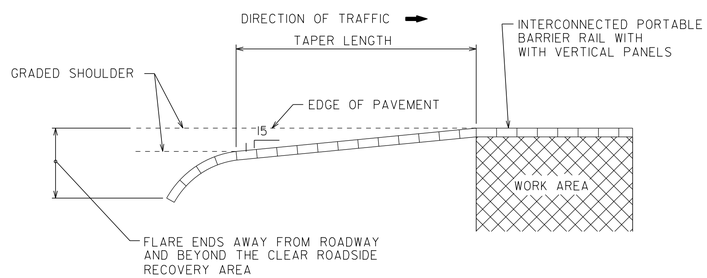
| TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO. |
|---|---|---|

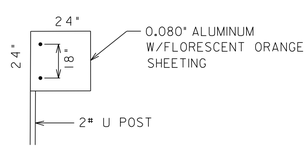
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 10 |



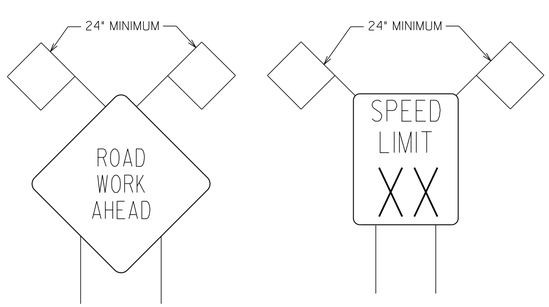

TYPICAL DETAIL OF TRAFFIC CONTROL DEVICES FOR CLOSURE OF ONE LANE OF A TWO LANE ROADWAY



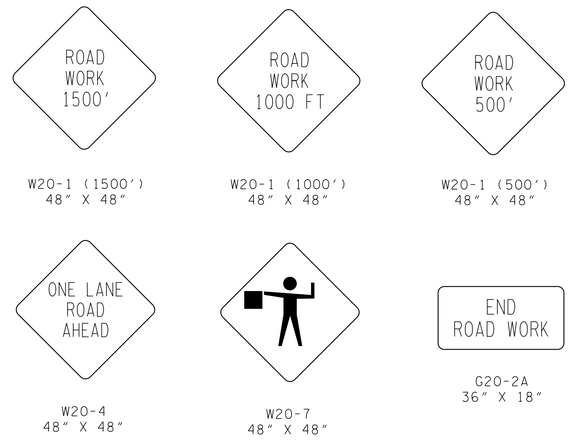

PORTABLE BARRIER RAIL ALIGNMENT




FLAG DETAIL




TYPICAL FLAG DETAIL




## CONSTRUCTION SEQUENCE

PHASE I
1. REMOVE EXISTING STEEL BARRIER RAIL WITH ATTENUATORS AND RETURN TO TDOT.
2. INSTALL ADVANCED WARNING SIGNS WITH FLAGS, PORTABLE BARRIER RAIL AND ALL OTHER APPLICABLE TRAFFIC CONTROL DEVICES.
3. MAINTAIN EXISTING TRAFFIC ALONG SR 41.
4. CONSTRUCT THE LEFT SHOULDER AND FILL SLOPE OF SR 41, INCLUDING DRAINAGE AND INSTALLING GUARDRAIL.
5. REMOVE PORTABLE BARRIER RAIL (LT).

PHASE II
1. INSTALL ALL APPLICABLE TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION DRUMS AND TEMPORARY PAVEMENT MARKINGS.
2. REMOVE EXISTING PAVEMENT MARKINGS (INCLUDING CENTERLINE CHANNELIZATION) AND INSTALL ALL TEMPORARY PAVEMENT MARKINGS (INCLUDING A DOUBLE SOLID YELLOW CENTERLINE) NECESSARY TO MAINTAIN TWO-WAY TRAFFIC ALONG SR 41.
4. CONSTRUCT THE RIGHT SHOULDER AND ROCK BUTTRESS FILL SLOPE OF SR 41, INCLUDING DRAINAGE, GUARDRAIL AND PRIVATE DRIVES.
5. REMOVE PORTABLE BARRIER RAIL (RT).

PHASE III
1. INSTALL TRAFFIC CONTROL DEVICES FOR A ONE LANE CLOSURE WITH FLAGGER.
2. RESURFACE SR 41 WHILE MAINTAINING ONE OPEN LANE WITH FLAGGER.
3. INSTALL ALL PERMANENT PAVEMENT MARKINGS AND SIGNING.
4. REMOVE ALL TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTIONS DRUMS AND TEMPORARY CONSTRUCTION ADVANCED WARNING SIGNS.

**UNOFFICIAL SET**

**NOT FOR BIDDING**

### SIGNS (CONSTRUCTION) (ITEM NO. 712-06)

| SUMNER CO. I | SUMNER CO. II | SUMNER CO. III | TOTAL REQUIRED | TYPE | SIZE | TOTAL QUANT. (S.F.) |
|---|---|---|---|---|---|---|
| 2 | 2 | 2 | 2 | W20-1 (1500) | 48" x 48" | 32.00 |
| 2 | 2 | 2 | 2 | W20-1 (1000') | 48" x 48" | 32.00 |
| 3 | 3 | 3 | 3 | W20-1 (500') | 48" x 48" | 48.00 |
| - | - | 2 | 2 | W20-4 | 48" x 48" | 32.00 |
| - | - | 2 | 2 | W20-7 | 48" x 48" | 32.00 |
| 3 | 3 | 3 | 3 | G20-2A (END ROAD WORK) | 36" x 18" | 13.50 |
| | | | | TOTAL | | 189.50 |

### TRAFFIC CONTROL QUANTITIES

| SUMNER CO. I | SUMNER CO. II | SUMNER CO. III | ITEM NO. | DESCRIPTION | UNIT | TOTAL QUANT. | |
|---|---|---|---|---|---|---|---|
| 4 | 2 | - | 705-08.51 | PORTABLE IMPACT ANTENUATOR NCHRP350 TL-3 | EA | 4 | (2) |
| 1 | 1 | 1 | 712-01 | TRAFFIC CONTROL | L.S. | 1 | (3) |
| 400 | 150 | - | 712-02.02 | INTERCONNECTED PORTABLE BARRIER RAIL | L.F. | 400 | |
| - | 20 | 20 | 712-04.01 | FLEXIBLE DRUMS (CHANNELIZING) | EA | 20 | |
| | | | 712-06 | SIGNS (CONSTRUCTION) | S.F. | 190 | |
| 10 | 4 | - | 712-06.01 | VERTICAL PANELS | S.F. | 20 | (4) |
| 1 | 1 | 1 | 712-08.03 | ARROW BOARD (TYPE C) | EA | 1 | |
| 3 | 3 | 3 | 713-16.01 | CHANGEABLE MESSAGE SIGN | EA | 3 | |
| - | 0.3 | - | 716-05.01 | PAINTED PAVEMENT MARKING (4" LINE) | L.M. | 0.3 | |
| 400 | 150 | - | 716-05.02 | PAINTED PAVEMENT MARKING (8" BARRIER LINE) | L.F. | 550 | |
| - | 1100 | - | 716-08.01 | REMOVAL OF PAVEMENT MARKING (LINE) | L.F. | 1100 | |
| - | 15 | - | 716-08.04 | REMOVAL OF PAVEMENT MARKING (CHANNEL. STRIPING) | S.Y. | 15 | |

(1) SOME TRAFFIC CONTROL DEVICES WILL BE USED IN DIFFERENT PHASES.

(2) THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF NCHRP 350 FOR TEST LEVEL 3. EXAMPLES WOULD BE A QUAD-GUARD, A REACT 350 OR A TRACC. THE PAY ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWING.

(3) INCLUDES TRAFFIC CONTROL SUPERVISOR. SEE T.D.O.T. BUREAU OF HIGHWAYS "SPECIAL PROVISION REGARDING TRAFFIC CONTROL SUPERVISOR".

(4) INCLUDES 6 RIGHT PANELS AND 4 LEFT PANELS

## TRAFFIC CONTROL NOTES

1. ALL TRAFFIC CONTROL DEVICES AND THEIR INSTALLATION SHALL MEET THE STANDARDS PRESCRIBED IN PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL COMPLY WITH THE STATE OF TENNESSEE, DEPARTMENT OF TRANSPORTATION, BUREAU OF PLANNING AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 712 - TEMPORARY TRAFFIC CONTROL, LATEST EDITION.
2. TRAFFIC CONTROL DEVICES SHOWN ARE THE MINIMUM DEVICES REQUIRED. ADDITIONAL TRAFFIC CONTROL DEVICES REQUIRED BY THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR AS DIRECTED BY THE ENGINEER SHALL BE INSTALLED AND WILL BE PAID FOR UNDER THE APPROPRIATE ITEM.
3. THE APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE INSTALLED AT THE INCEPTION OF EACH STAGE OF CONSTRUCTION, PRIOR TO OPENING A ROAD TO TRAFFIC OR CLOSING AN EXISTING ROAD.
4. ALL TRAFFIC CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AND/OR OPERATED AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER.
5. ALL REGULATORY AND WARNING SIGNS, WHICH ARE NO LONGER APPROPRIATE BECAUSE OF CONSTRUCTION, SHALL BE COVERED OR REMOVED.
6. EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH TRAFFIC CONTROL PAVEMENT MARKINGS SHALL BE REMOVED.
7. DRUMS AND PAVEMENT MARKINGS ARE NOT SHOWN AT EVERY LOCATION ON ON EACH SHEET AND SHALL BE PLACED IN CONFORMANCE WITH THE STANDARD DRAWINGS AND THE MUTCD. FLEXIBLE DRUMS SHALL BE USED ON 50 FOOT SPACING ALONG THE FULL LENGTH OF CONSTRUCTION.
8. ALL CONSTRUCTION TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY UPON COMPLETION OF THE PROJECT.
9. ALL LANE LINES AND EDGE LINES USED AS TEMPORARY MARKINGS SHALL BE 4 IN. WIDE.
10. THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
11. THE CONTRACTOR IS TO MAINTAIN ACCESS TO ALL LOCAL PROPERTY OWNERS.
12. FLAGS ARE TO BE USED ON ADVANCE WARNING SIGNS WHERE SHOWN. FLAGS ARE TO BE 2' X 2' AND FLUORESCENT RED- ORANGE IN COLOR. COST OF FLAGGING TO BE INCLUDED IN PAY ITEM NO. 712-01.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# TRAFFIC CONTROL DETAILS

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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 10A |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

# PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

A. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES OR TRAFFIC LANE AND SHOULDER WHERE THE TRAFFIC LANE IS BEING USED BY TRAFFIC, CAUSED BY BASE, PAVING OR RESURFACING:

1. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 0.75 INCH AND NOT EXCEEDING 2 INCHES:

a. WARNING SIGNS, UNEVEN LANES (W8-11) AND/OR SHOULDER DROP-OFF WITH PLAQUE (W8-17 AND W8-17P), SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

b. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY ADDED PAVEMENT SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

c. DIFFERENCES IN ELEVATION BETWEEN ADJACENT TRAFFIC LANES BEING UTILIZED BY TRAFFIC CAUSED BY COLD PLANING SHALL BE ELIMINATED WITHIN THREE WORKDAYS.

d. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE TRAFFIC LANE BEING UTILIZED BY TRAFFIC AND SHOULDER THE DIFFERENCE IN ELEVATION SHALL BE ELIMINATED WITHIN SEVEN WORKDAYS AFTER THE CONDITION IS CREATED.

2. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES. TRAFFIC IS NOT TO BE ALLOWED TO TRAVERSE THIS DIFFERENCE IN ELEVATION.

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. IF THE DIFFERENCE IN ELEVATION IS ELIMINATED OR DECREASED TO 2 INCHES OR LESS BY THE END OF EACH WORKDAY, CONES MAY BE USED DURING DAYLIGHT HOURS IN LIEU OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES MENTIONED IN PARAGRAPH a, PROVIDED WARNING SIGNS ARE ERECTED. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

c. WHEN THE DIFFERENCE IN ELEVATION IS BETWEEN THE THROUGH TRAFFIC LANE AND THE SHOULDER AND THE ELEVATION DIFFERENCE IS LESS THAN 3.5 INCHES, THE CONTRACTOR MAY USE WARNING SIGNS AND/OR PROTECTIVE DEVICES AS APPLICABLE AND APPROVED BY THE ENGINEER. SEE PARAGRAPH a REGARDING USE OF DRUMS, BARRICADES OR OTHER APPROVED PROTECTIVE DEVICES. WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) WILL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 2 MILES IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

3. DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 6 INCHES BUT NOT EXCEEDING 18 INCHES, THE CONTRACTOR, WITH THE ENGINEER'S APPROVAL, MAY UTILIZE ONE OF THE FOLLOWING:

a. THE CONTRACTOR SHALL ACCOMPLISH SEPARATION BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

IN ORDER TO USE THIS METHOD, THE CONTRACTOR MUST REDUCE THE DIFFERENCE IN ELEVATION TO 6 INCHES OR LESS BY THE END OF THE WORKDAY THAT THE CONDITION IS CREATED.

b. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a, AND CONSTRUCT A STONE WEDGE WITH A 4:1 SLOPE, OR FLATTER, TO ELIMINATE THE VERTICAL OFFSET IF THE LOWER ELEVATION IS AT OR BELOW SUBGRADE AT THE END OF EACH DAY.

c. THE CONTRACTOR SHALL PROVIDE DRUMS, BARRICADES OR OTHER APPROVED SEPARATION DEVICES AS SPECIFIED IN PARAGRAPH a AND IF THE LOWER ELEVATION IS BASE STONE OR ASPHALT PAVEMENT, PLACEMENT OF SUBSEQUENT LAYERS OF PAVEMENT MUST BEGIN THE NEXT WORK DAY AND PROGRESS CONTINUOUSLY UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED OR REDUCED TO SIX INCHES OR LESS.

d. THE CONTRACTOR SHALL PROVIDE SEPARATION BY PORTABLE BARRIER RAIL.

FOR PRECEDING CONDITIONS a, b, AND c, THE CONTRACTOR SHALL USE THE SHOULDER DROP-OFF WARNING SIGN WITH PLAQUE (W8-17 AND W8-17P). IT SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN THE SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. IN THESE SITUATIONS, THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

4. FOR DIFFERENCES IN ELEVATION BETWEEN ADJACENT ROADWAY ELEMENTS GREATER THAN 18 INCHES.

SEPARATION WILL BE PROVIDED BY USE OF PORTABLE BARRIER RAIL.

IN THIS SITUATION THE CONTRACTOR SHALL LIMIT HIS OPERATIONS TO ONE WORK ZONE NOT EXCEEDING 1 MILE IN LENGTH UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER. ONCE THE CONTRACTOR BEGINS WORK IN A WORK ZONE, A CONTINUOUS OPERATION SHALL BE MAINTAINED UNTIL THE DIFFERENCE IN ELEVATION IS ELIMINATED. SIMULTANEOUS WORK ON SEPARATE ROADWAYS OF DIVIDED HIGHWAYS WILL BE CONSIDERED INDEPENDENTLY IN REGARD TO RESTRICTION OF WORK ZONE ACTIVITY.

B. IF THE DIFFERENCE IN ELEVATION IS WITHIN 30 FEET OF THE NEAREST TRAFFIC LANE BEING USED BY TRAFFIC CAUSED BY GRADING, EXCAVATION FOR UTILITIES, DRAINAGE STRUCTURES, UNDERCUTTING, ETC.:

1. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 3/4 INCH AND NOT EXCEEDING 2 INCHES.

WARNING SIGNS (UNEVEN LANES AND/OR SHOULDER DROP-OFF) SHALL BE PLACED IN ADVANCE OF AND THROUGHOUT THE EXPOSED AREA. MAXIMUM SPACING BETWEEN SIGNS SHALL BE 2,000 FEET WITH A MINIMUM OF 2 SIGNS PER EXPOSED AREA. WHERE UNEVEN PAVEMENT IS ENCOUNTERED, SIGNS SHALL BE PLACED ON EACH SIDE OF THE ROADWAY.

2. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 2 INCHES AND NOT EXCEEDING 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

3. IF THE DIFFERENCE IN ELEVATION IS WITHIN 8 FEET OF THE NEAREST TRAFFIC LANE WITH DIFFERENCE IN ELEVATION GREATER THAN 6 INCHES:

a. SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

(1) WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

(2) WHERE POSTED SPEEDS ARE LESS THAN 50 MPH THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

b. ELIMINATE VERTICAL OFFSET BY CONSTRUCTING A STONE WEDGE OR GRADING TO A 4:1 SLOPE, OR FLATTER, OR USE PORTABLE BARRIER RAIL.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE WITHIN 8 FEET OF A TRAFFIC LANE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

C. IF THE DIFFERENCE IN ELEVATION IS FARTHER THAN 8 FEET FROM THE NEAREST TRAFFIC LANE BUT NOT MORE THAN 30 FEET FROM THE NEAREST TRAFFIC LANE:

SEPARATION SHALL BE ACCOMPLISHED BY DRUMS, BARRICADES OR OTHER APPROVED DEVICES IN ACCORDANCE WITH THE FOLLOWING:

1. WHERE POSTED SPEEDS ARE 50 MPH OR GREATER, SPACING OF THE PROTECTIVE DEVICES SHALL NOT EXCEED 100 FEET.

2. WHERE POSTED SPEEDS ARE LESS THAN 50 MPH, THE MAXIMUM SPACING OF THE PROTECTIVE DEVICES IN FEET SHALL NOT EXCEED TWICE THE POSTED SPEED IN MILES PER HOUR OR 50 FEET, WHICHEVER SPACING IS GREATER.

THE CONTRACTOR SHALL SCHEDULE THE WORK SO AS TO MINIMIZE THE TIME TRAFFIC IS EXPOSED TO AN ELEVATION DIFFERENCE. ONCE THE CONTRACTOR BEGINS AN ACTIVITY THAT CREATES AN ELEVATION DIFFERENCE, THE ACTIVITY SHALL BE PURSUED AS A CONTINUOUS OPERATION UNTIL THE ELEVATION DIFFERENCE IS ELIMINATED.

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

PAVEMENT EDGE DROP-OFF TRAFFIC CONTROL NOTES

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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
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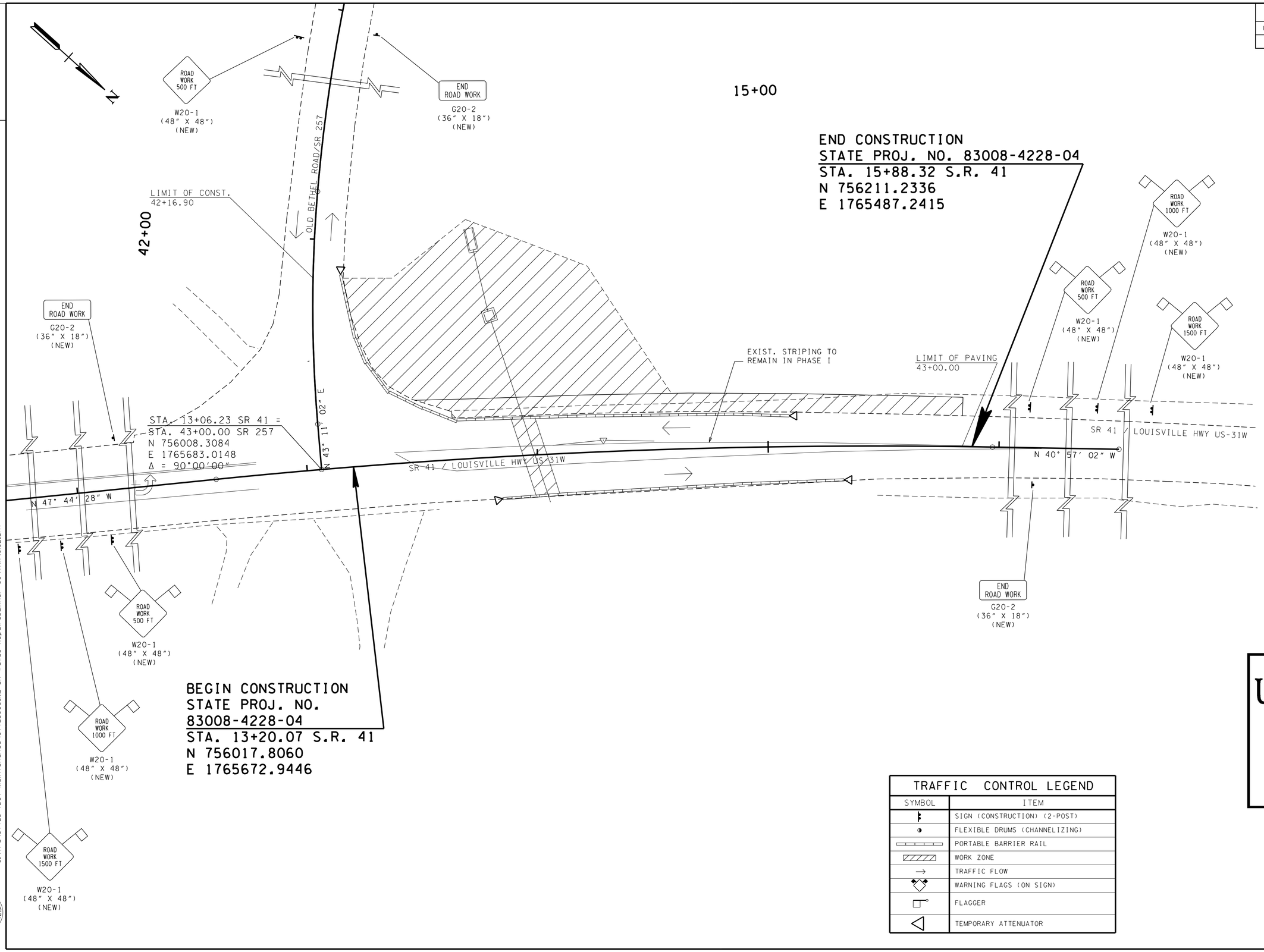
| CONST. | 2014 | 83008-3228-04 | 10B |

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.




| TRAFFIC CONTROL LEGEND | |
|---|---|
| SYMBOL | ITEM |
| | SIGN (CONSTRUCTION) (2-POST) |
| | FLEXIBLE DRUMS (CHANNELIZING) |
| | PORTABLE BARRIER RAIL |
| | WORK ZONE |
| | TRAFFIC FLOW |
| | WARNING FLAGS (ON SIGN) |
| | FLAGGER |
| | TEMPORARY ATTENUATOR |

**UNOFFICIAL SET**

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STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# TRAFFIC CONTROL PLAN PHASE I

SCALE: 1" = 20'

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Survey & Design Division

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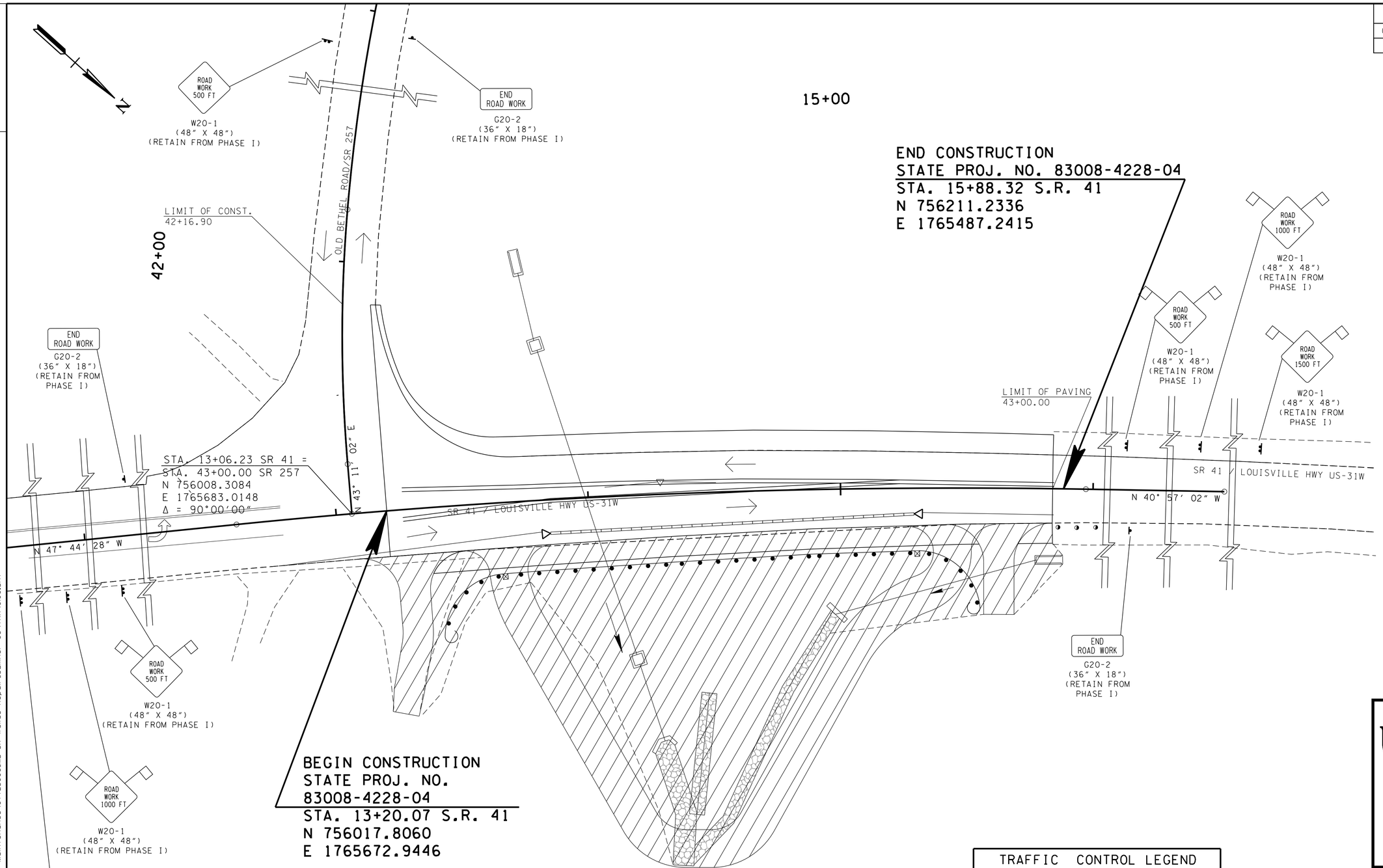
| CONST. | 2014 | 83008-3228-04 | 10C |




| TRAFFIC CONTROL LEGEND | |
|---|---|
| SYMBOL | ITEM |
| | SIGN (CONSTRUCTION) (2-POST) |
| | FLEXIBLE DRUMS (CHANNELIZING) |
| | PORTABLE BARRIER RAIL |
| | WORK ZONE |
| | TRAFFIC FLOW |
| | WARNING FLAGS (ON SIGN) |
| | FLAGGER |
| | TEMPORARY ATTENUATOR |

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DEPARTMENT OF TRANSPORTATION
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# TRAFFIC CONTROL PLAN PHASE II

SCALE: 1" = 20'

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Survey & Design Division

| TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO. |
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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
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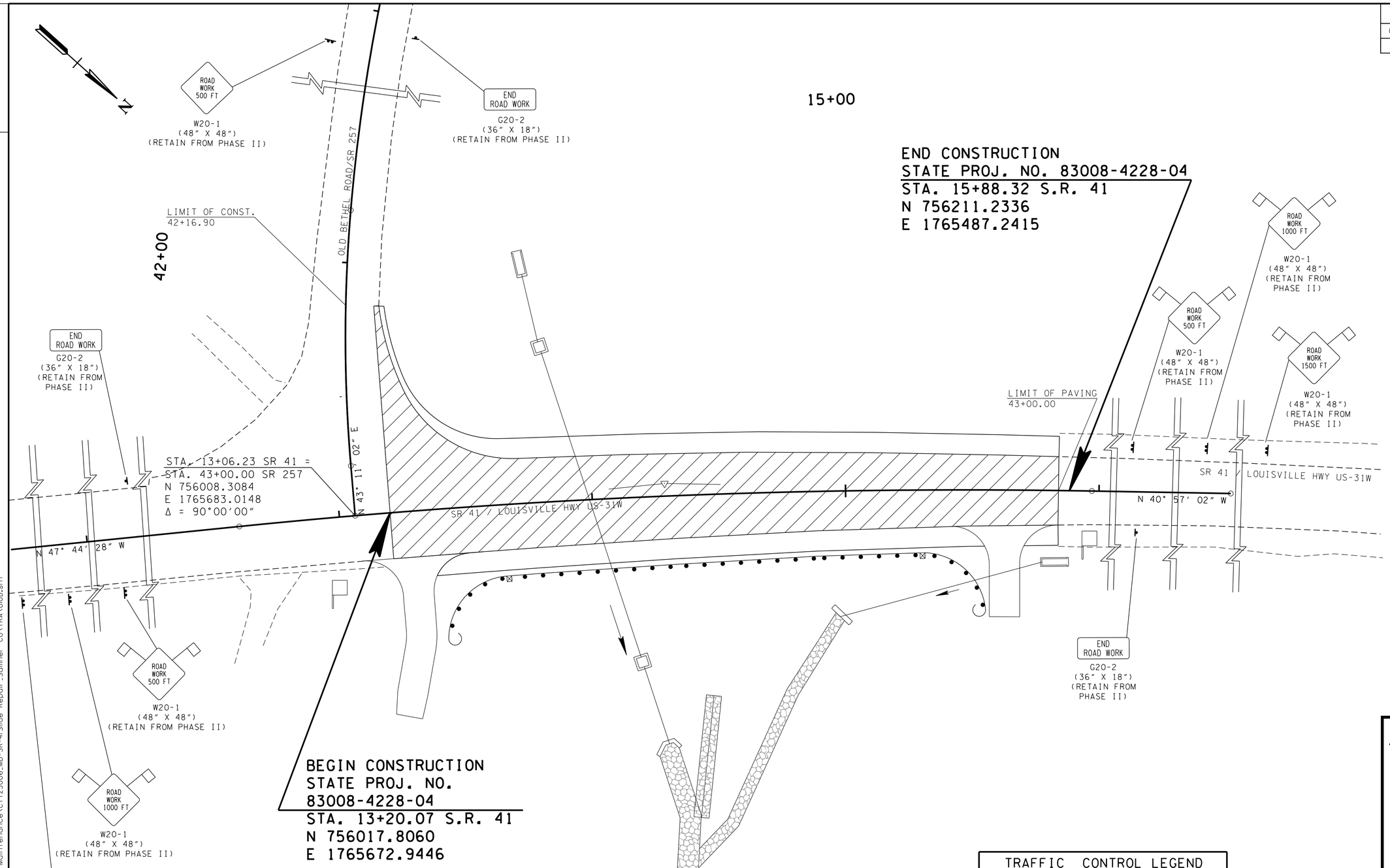
| CONST. | 2014 | 83008-3228-04 | 10D |




| TRAFFIC CONTROL LEGEND | |
|---|---|
| SYMBOL | ITEM |
| | SIGN (CONSTRUCTION) (2-POST) |
| | FLEXIBLE DRUMS (CHANNELIZING) |
| | PORTABLE BARRIER RAIL |
| | WORK ZONE |
| | TRAFFIC FLOW |
| | WARNING FLAGS (ON SIGN) |
| | FLAGGER |
| | TEMPORARY ATTENUATOR |

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DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# TRAFFIC CONTROL PLAN PHASE III

SCALE: 1" = 20'

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Survey & Design Division

| TENNESSEE D.O.T. | DESIGN DIVISION | FILE NO. |
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| TYPE | YEAR | PROJECT NO. | SHEET NO. |
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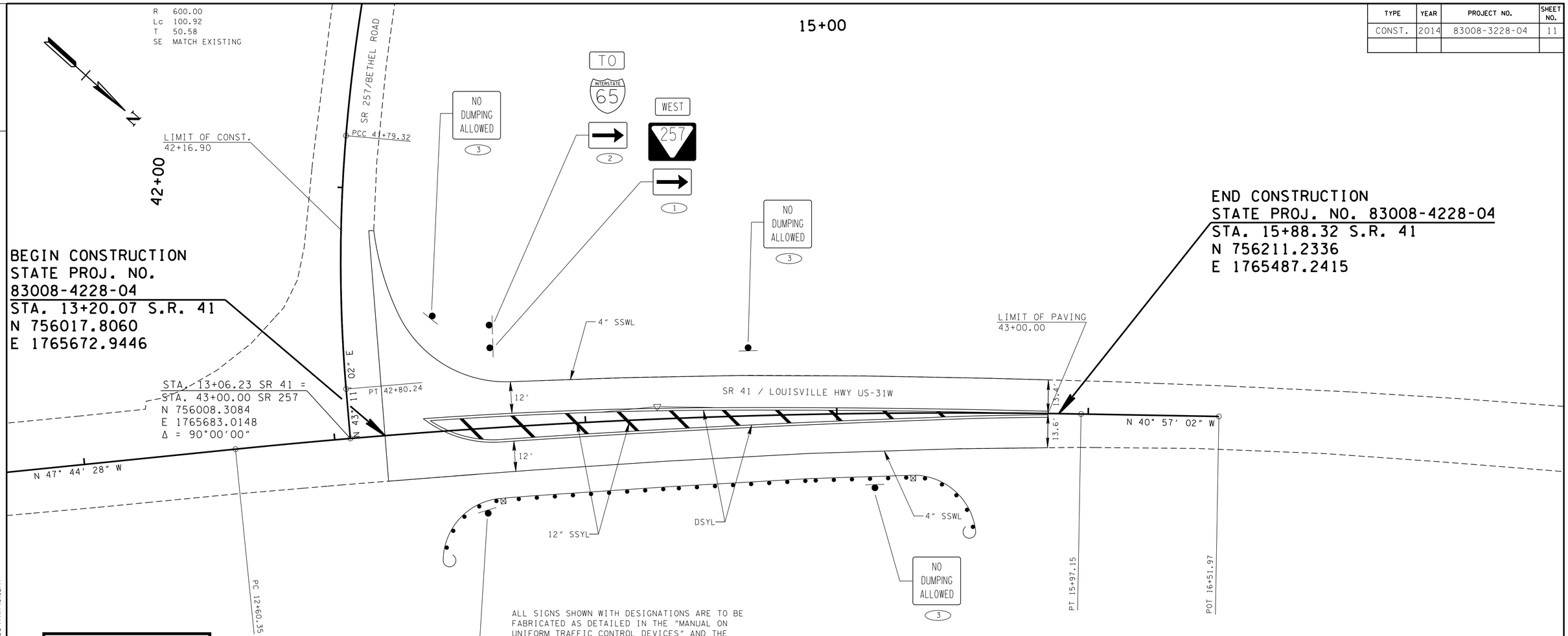
| CONST. | 2014 | 83008-3228-04 | 11 |




ALL SIGNS SHOWN WITH DESIGNATIONS ARE TO BE FABRICATED AS DETAILED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE "TN-SUPPLEMENT TO HIGHWAY SIGNS" (CURRENT EDITIONS)

SEE STD. DWG. NO. T-S-19

| SIGN NO. | LEGEND | | SIZE | | SIGN FACE | | | STEEL DESIGN (BREAK-AWAY) | | MIN. VERTICAL CLEARANCE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | LENGTH | HEIGHT | COPY | BACKGROUND | MATERIAL | SUPPORT TYPE | SUPPORT LENGTH | |
| 1 | WEST | M3-4 | 24" | 12" | BLACK | WHITE (REF.) | 0.080" SHEET ALUMINUM | U6 | h=13'-6" | 5'-0" |
| | 257 | TN-6B | 30" | 24" | BLACK | WHITE (REF.) | 0.080" SHEET ALUMINUM | U6 | | |
| | → | M6-1 | 21" | 15" | BLACK | WHITE (REF.) | 0.080" SHEET ALUMINUM | U6 | | |
| 2 | TO | M4-5 | 24" | 12" | WHITE (REF.) | BLUE (REF.) | 0.080" SHEET ALUMINUM | U6 | h=13'-6" | 5'-0" |
| | INTERSTATE 65 | M1-1 | 24" | 24" | WHITE RED | RED/BLUE (REF.) | 0.080" SHEET ALUMINUM | U6 | | |
| | → | M6-1 | 21" | 15" | WHITE (REF.) | BLUE (REF.) | 0.080" SHEET ALUMINUM | U6 | | |
| 3 | NO DUMPING ALLOWED | TN-19 | 24" | 18" | BLACK | WHITE (REF.) | 0.080" SHEET ALUMINUM | P8 | h=13'-6" | 5'-0" |

**UNOFFICIAL SET**

**NOT FOR BIDDING**

CURVE DATA
SR 41

| | |
|---|---|
| PI | 14+28.95 |
| N | 756,090.5602 |
| E | 1,765,591.9402 |
| Δ | 6° 47' 26" (RT) |
| D | 2° 00' 58" |
| R | 2,841.72 |
| Lc | 336.80 |
| T | 168.60 |
| SE | MATCH EXISTING |

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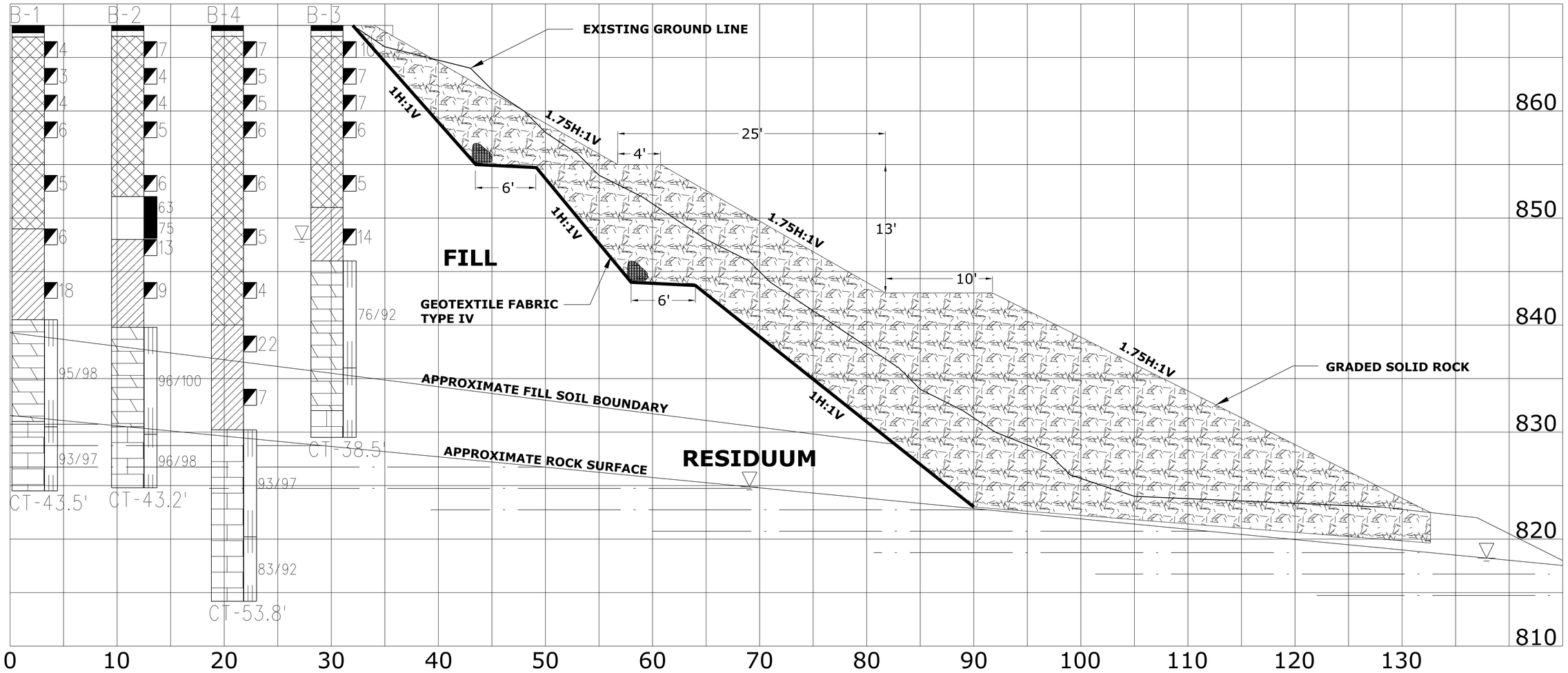
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

# SIGNING AND PAVEMENT MARKING PLAN & SIGN SCHEDULE

SCALE: 1" = 20'

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 2B |
| CONST. | 2014 | 83008-3228-04 | 12 |

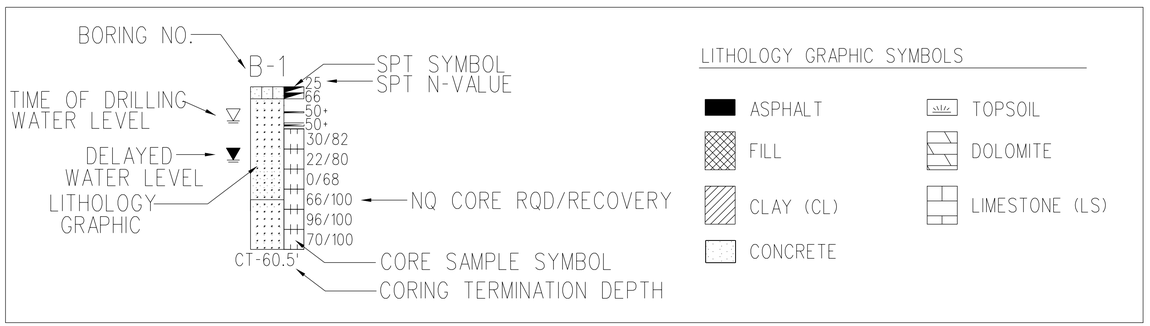
TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.




CROSS-SECTION A-A'
(SCALE 1"=5')

Borings shown for illustration purposes only.
Please see sheet 4A for actual boring locations and spacing.

BORING PROFILE SYMBOLS




NOTE: INFORMATION PROVIDED TAKEN FROM S&ME GEOTECHNICAL REPORT "SLOPE STABILITY EVALUATION, STATE ROUTE 41 SLIDE" DATED AUGUST 6, 2013

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**NOT FOR BIDDING**

SEE SHEET 6 FOR BORING INFORMATION FOR BORINGS B-5 AND B-6.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING & DEVELOPMENT

SOILS SHEET

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Survey & Design Division

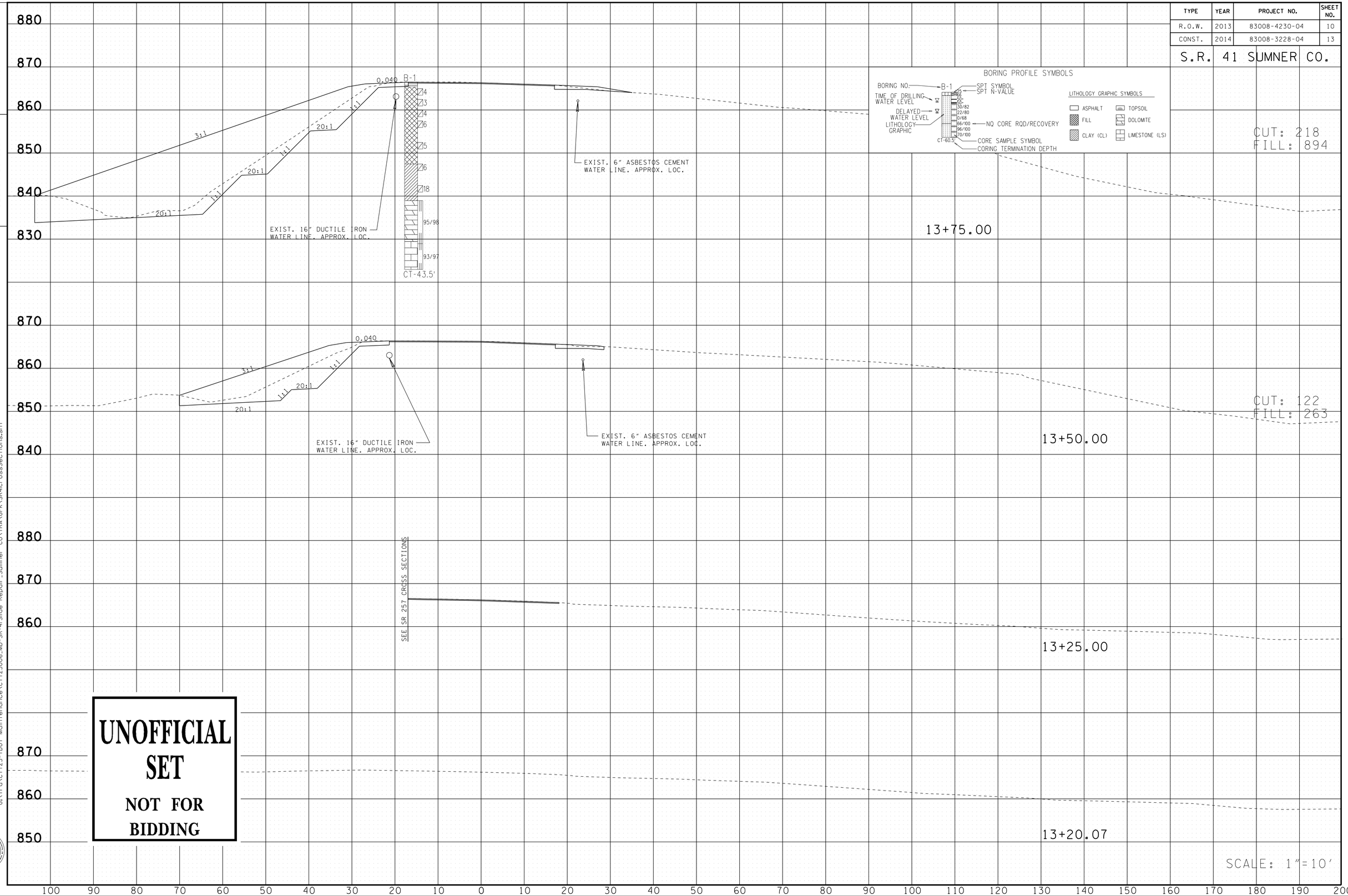
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 10 |
| CONST. | 2014 | 83008-3228-04 | 13 |

S.R. 41 SUMNER CO.

FILE NO.

TENNESSEE D.O.T.

DESIGN DIVISION




UNOFFICIAL SET

NOT FOR BIDDING

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Survey & Design Division

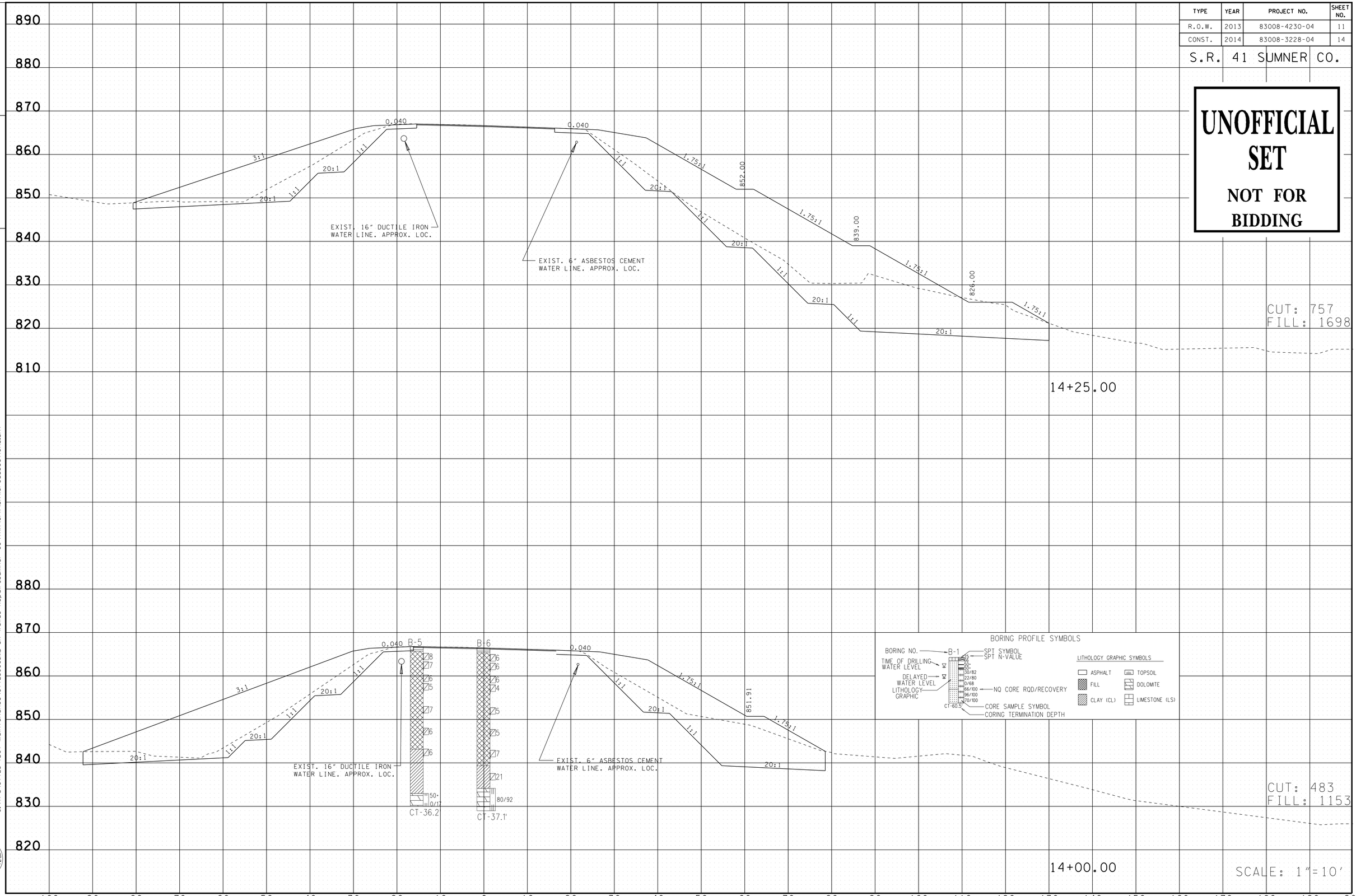
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 11 |
| CONST. | 2014 | 83008-3228-04 | 14 |

S.R. 41 SUMNER CO.

**UNOFFICIAL SET**

**NOT FOR BIDDING**

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

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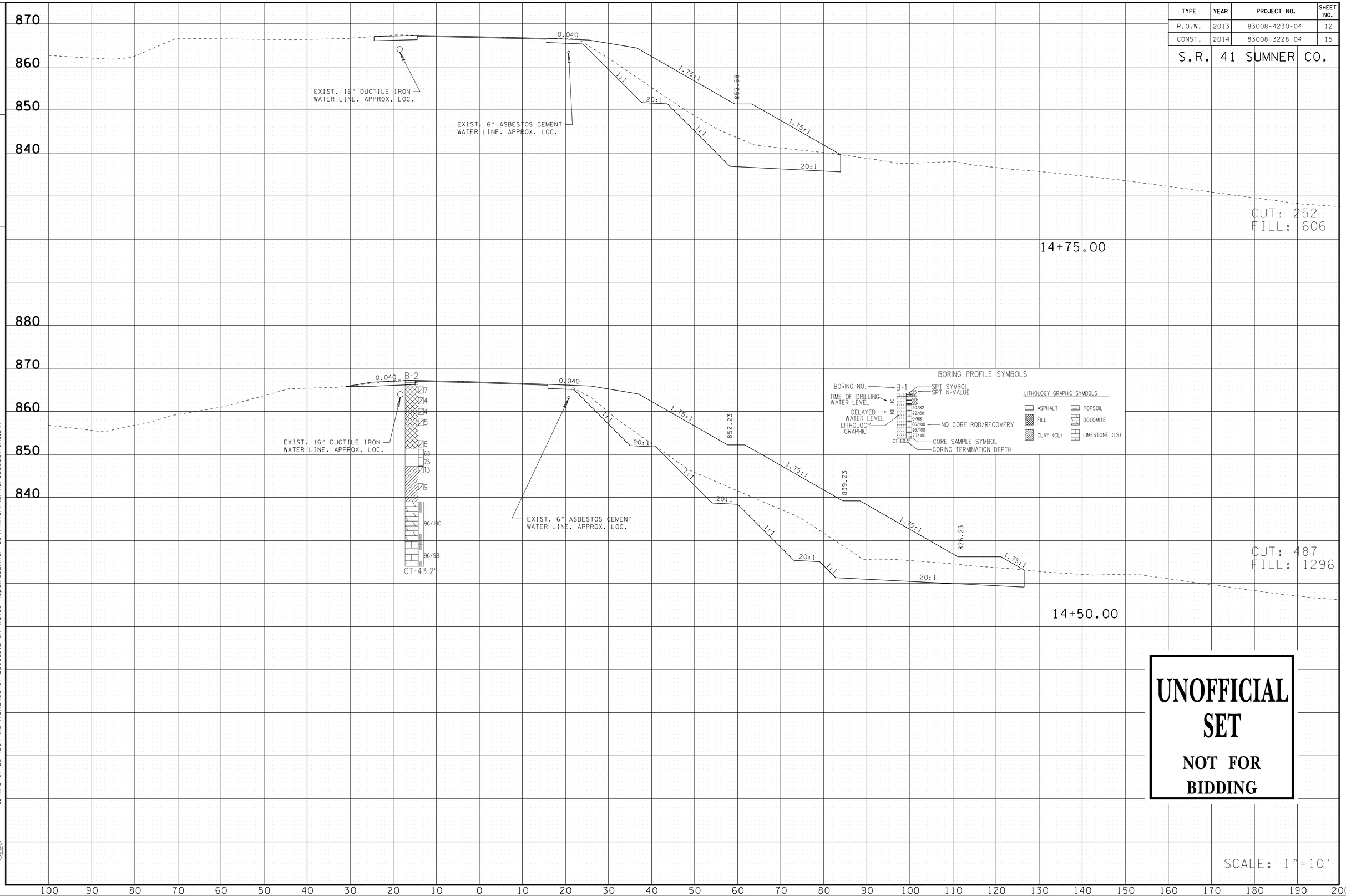
Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 12 |
| CONST. | 2014 | 83008-3228-04 | 15 |

S.R. 41 SUMNER CO.

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

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SCALE: 1"=10'

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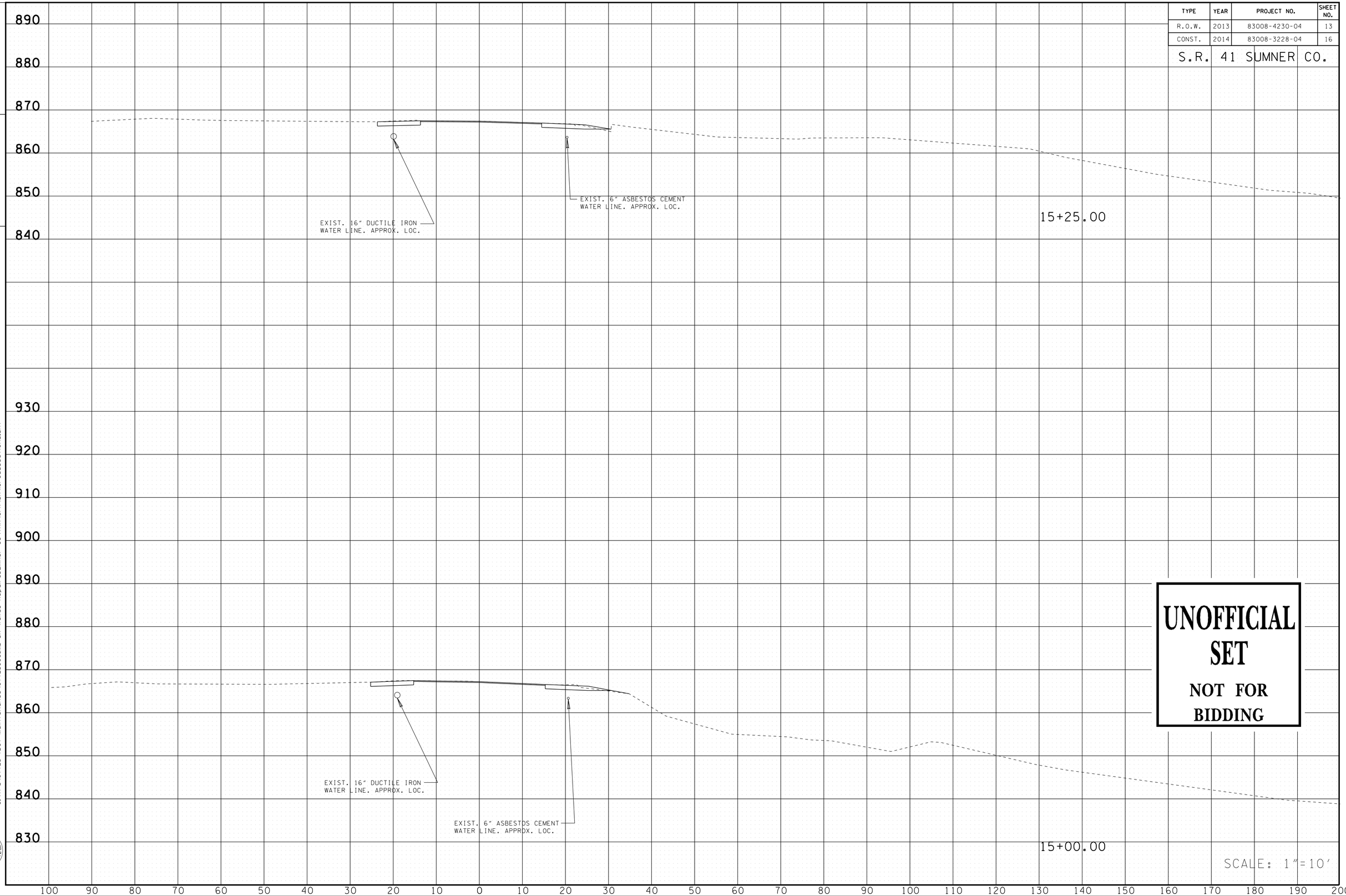
Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-4230-04 | 13 |
| CONST. | 2014 | 83008-3228-04 | 16 |

S.R. 41 SUMNER CO.

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

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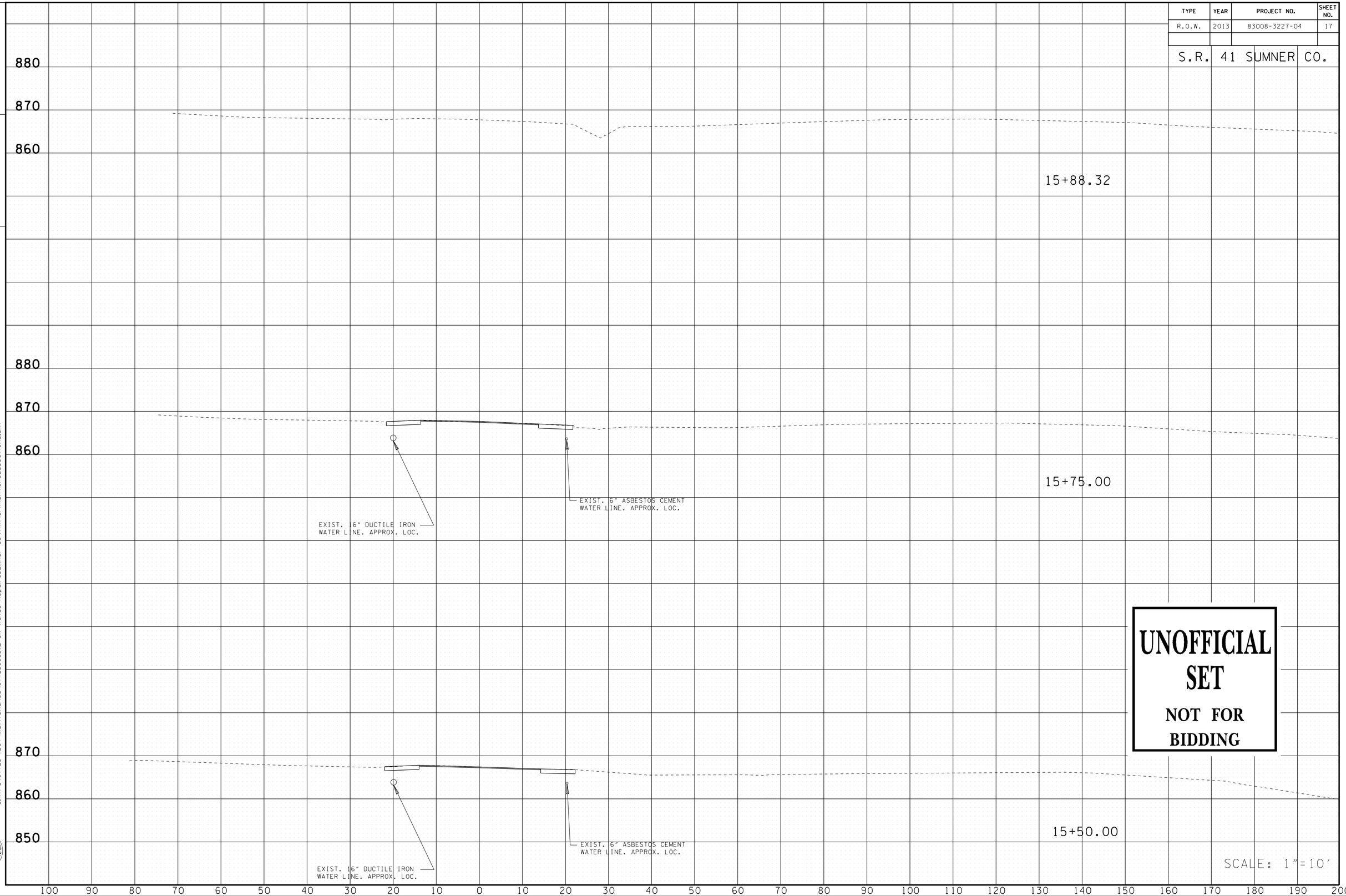
| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| R.O.W. | 2013 | 83008-3227-04 | 17 |

S.R. 41 SUMNER CO.

FILE NO.

TENNESSEE D.O.T.
DESIGN DIVISION

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Survey & Design Division

| TYPE | YEAR | PROJECT NO. | SHEET NO. |
|---|---|---|---|
| CONST. | 2014 | 83008-3228-04 | 18 |

S.R. 257 SUMNER CO.

**UNOFFICIAL SET**

**NOT FOR BIDDING**

TENNESSEE D.O.T.
DESIGN DIVISION
FILE NO.

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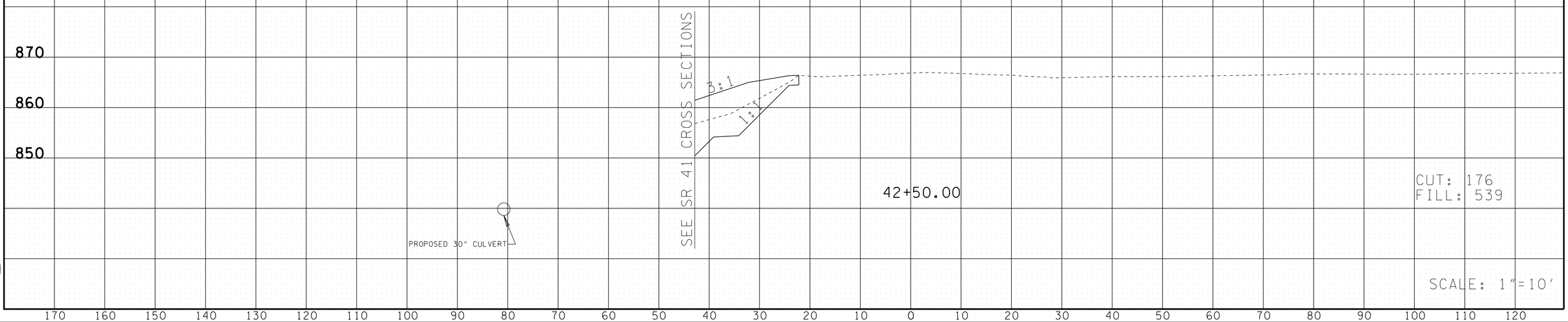


CUT: 176
FILL: 539

SCALE: 1"=10'